

CHIEF OFFICE,
LONDON:
4 CANNON STREET,
E.C.

BRANCH OFFICE,
AUSTRALASIA:
NORMANBY CHAMBERS,
MELBOURNE.

Subscription: **10/- PER ANNUM**, Post Free to any Part of the World.

ESTABLISHED IN
ENGLAND ... 1859.
AUSTRALASIA ... 1885.

Entered at Stationers' Hall.]

[Registered for Foreign Transmission.

No. 428. VOL. XXXII.

JUNE 30, 1888.

Subscription, 10s. PER ANNUM, INCLUDING
DIARY, POST FREE THE WORLD OVER.
SINGLE COPIES, 4d. EACH POST FREE.

Supplied IN BULK, also in $\frac{1}{2}$ -lb. Bottles, labelled either with or without our Name and Address.

Effervescent Saline

This is a finely granulated preparation, which, in dissolving, produces a sustained sparkling effervescence, and a clear bright solution.

It is an excellent febrifuge, and makes a very pleasant and refreshing beverage, whilst, if taken before breakfast and in adequate doses, it forms an efficient aperient

Soluble Saccharin,

FOR GENERAL USE IN PLACE OF SUGAR

(STRENGTH 90%).

ONE POUND EQUALS ABOUT 280 LBS. OF CANE SUGAR.

The SOLUBLE SACCHARIN will not only be found the most convenient for general use, but also the cheapest form in which SACCHARIN is offered for sale.

In Bottles containing $\frac{1}{2}$ oz., to Retail at 2/6 each, attractively put up in Cardboard Case, and packed 1 dozen in a Box, with Show Label.

Allen & Hanburys,

MANUFACTURING, PHARMACEUTICAL, AND ANALYTICAL CHEMISTS,

WHOLESALE AND EXPORT DRUGGISTS,

PLOUGH COURT, LOMBARD STREET, LONDON.

Works—BETHNAL GREEN, LONDON.

Cod Liver Oil Manufactories—LONGVA AND KJERSTAD, NORWAY.

EXCHANGE COLUMN, PAGE 14.

ADVERTISERS' AND BUYERS' REFERENCE LIST AND INDEX TO ADVERTISEMENTS, PAGES 23-25.

TELEGRAPHIC ADDRESS—"BISMUTH LONDON."

Medals—1851, 1855, 1862, 1867, 1885.



(W. G. BAKER. R. C. HEATH. T. TYRER. W. E. B. BLENKINSOP.)

WHOLESALE AND EXPORT ONLY.

MERCURIALS.

BENZOIC ACID AND BENZOATES.

BISMUTH SALTS.

FRUIT ESSENCES AND FLAVOURS.

PURE **ETHERS** METHYLATED.

FINE AND GENERAL CHEMICALS.

TABLET CAMPHOR

SUBLIMED ANY SIZE

UNIFORMLY THICK & TRANSPARENT.

SULPHONAL-BAYER. (See page 6.)

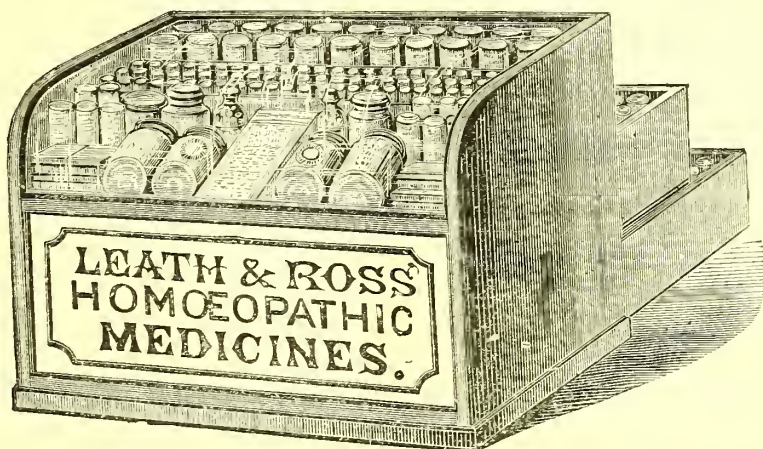
LEATH & ROSS'S HOMŒOPATHIC PHARMACIES

9 VERE STREET, W.,
And 5 ST. PAUL'S CHURCHYARD, E.C., LONDON.

OUR £10 10s. AGENTS' SHOW CASE.

Contents realise £17 17s. 8d.

DIMENSIONS.—Length, 18 in.;
Breadth, 13 in.; Height, 13 in.



DESCRIPTION.—A Handsome Bent Glass Case, with three drawers, the contents of top drawer visible, the Pilules and Tinctures arranged in the other two in alphabetical order.

WHOLESALE PRICE LIST OF MEDICINES PUT UP READY FOR SALE.

GLOBULES or PILULES—

Sixpenny Tubes	...	—	2/9 per dozen.
Ninepenny "	...	—	4/3 "
Shilling "	...	—	5/- "

TINCTURES or TRITURATIONS—

Sixpenny Bottles	...	...	2/9 per dozen.
Ninepenny "	...	...	4/3 "
Shilling "	...	...	5/- "

PROPRIETARY ARTICLES.

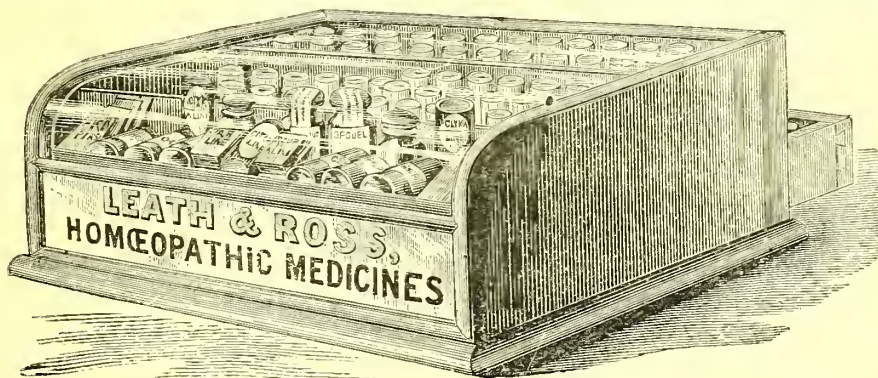
Neuraline	...	...	1/1½	Berberine	...	...	1/1½	Linimentum Auricularis	...	1/1½
Glykoline	...	...	1/1½	Chilblain Liniment	...	...	1/1½	Bryonia Liniment	...	1/1½
Phospho-muriate of Quinine	1 1½			Odontagie Essence	...	...	1/1½	Corn Eradicator	...	1/1½

All the above Proprietary Articles, 9/6 per dozen.

OUR £6 6s. AGENTS' SHOW CASE.

Contents realise £10 18s. 3d.

DIMENSIONS.—Length, 20 in.;
Breadth, 15½ in.; Height, 9½ in.



DESCRIPTION.—A Handsome Bent Glass Case, with two drawers, the contents of top drawer visible, the Pilules and Tinctures arranged in alphabetical order.

TO CHEMISTS AND DRUGGISTS.

IMPORTANT NOTICE.

DAHL'S DYSPEPSIA CAKES

("PANIS DIETETICUS")

FOR INDIGESTION & CONSTIPATION.

These Cakes are being widely recommended by leading medical men, but patients inform us that there is often a difficulty in obtaining them from some chemists, as they do not keep them in stock, consequently patients have to apply to us direct, when we would prefer the orders to come through the regular channels. With a view to alter this, and to encourage chemists and druggists to keep limited supplies for their customers, we undertake to take back at cost price any surplus stock in good condition on the 30th September or 31st December next. Orders may be sent through the wholesale houses. Show-cards, circulars, copy of analysis, and names of doctors recommending the cakes will be sent post free to any chemist on application. Boxes 2s. 6d. each.

COPY OF CERTIFICATE.

I certify that I have tried Dahl's Dyspepsia Cakes and am well pleased with the results. I find that when taken after a meal nothing that I have ever tried is so effectual to relieve acidity of the stomach, that is, the so-called "Heartburn." I find also they act as a slight laxative and stimulant to the liver secretion. The best way to take them is to dip the cake into hot milk and water, equal parts; taken in this form they are not unpleasant, and make also a very nutritive and easily digested food.

June, 1888.

(Signed)

THOMAS BOND, F.R.C.S.,

Surgeon to the Westminster Hospital.

DAHL'S AGENCY, 41 EASTCHEAP, LONDON, E.C.

VALUABLE & INTERESTING TO EVERYBODY.

COMPRESSED HOPS.

Best Hops compressed into small parcels of one pound and half-pounds, and sent out in cases containing 30 lbs. each. These Hops are specially selected and compressed for keeping purposes, and will retain their aromatic strength for a considerable time.

They are introduced to the Public to enable them to make their own BITTERS, YEAST, HOME BREWING, and numerous other purposes. Full particulars given on each packet.

P.S.—Chemists will naturally see the great advantage in making their own Bitters from the Pure Hop itself.

Specially Packed by **A. WILKINSON & SONS, 27 Derby Lane, Old Swan, LIVERPOOL.**

SAMPLES AND QUOTATIONS ON APPLICATION.

Sole Agents for Chemists—**EVANS, SONS & CO., Liverpool; EVANS, LESCHER & WEBB, London; EVANS, SONS & MASON, Lim., Montreal.**

Trade Notice.]



[Trade Notice.

ATKINSON & BARKER'S

ROYAL INFANTS' PRESERVATIVE.

Established by 90 years' experience as a safe and effective Medicine.

Sold universally by Chemists and Patent Medicine Dealers.

WHOLESALE AND EXPORT ORDERS SUPPLIED FROM THE MANUFACTORY—

11 RUSSELL STREET, DOWNING STREET, MANCHESTER.

SHOW CARDS AND BILLS ON APPLICATION.

BEECHAM'S PILLS

CAUTION.

THE PUBLIC ARE HEREBY INFORMED that by an order made by Mr. Justice Stirling on the 16th day of June, 1888, in an action in the High Court of Justice (Chancery Division), Beecham v. Pritchard, the Defendant was perpetually restrained from infringing the Plaintiff's Trade Mark, and from printing, writing, or marking on or affixing to, or causing or permitting to be printed, written, or marked on, or affixed to, any show or other cards, or labels, or pill boxes, the words "BEECHAM'S PILLS," or any mark calculated or contrived so as to lead to the belief that the Pills sold by the Defendant are the Plaintiff's Pills.

PROCEEDINGS WILL BE TAKEN against any person selling Pills as "BEECHAM'S PILLS" other than those manufactured and supplied by the Plaintiff, Thomas Beecham, of St. Helens, Lancashire, the Proprietor of "BEECHAM'S PILLS."

OPPENHEIM & MALKIN,

61 Lord Street, Liverpool,

June, 1888.

Solicitors for the said Thomas Beecham.

We beg to inform the Medical Profession that we are the Manufacturers of Profs. BAUMANN & KAST'S newly-discovered Hypnotic "SULPHONAL," and that we are introducing this under the name of

"SULPHONAL BAYER"

into Therapy.

It is sold in Glass Bottles of 1 and 2 ounces.

FARBENFABRIKEN VORM. FRIEDR. BAYER & CO.
ELBERFELD.

COLD-DRAWN AFRICAN GROUND NUT OIL.

THE BEST OIL FOR

Margarine Manufacturers. Fancy Soap Makers.
Fried Fish Salesmen. Lime Cream Manufacturers.

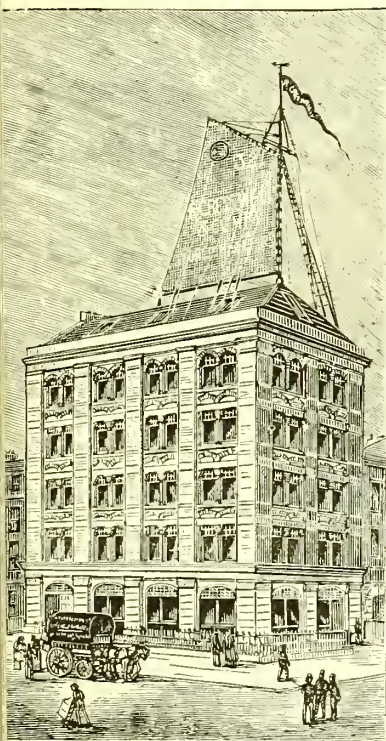
A CHEAP SUBSTITUTE FOR ALMOND AND OLIVE OILS
IN GENERAL USE BY CHEMISTS.

MANUFACTURED BY THE

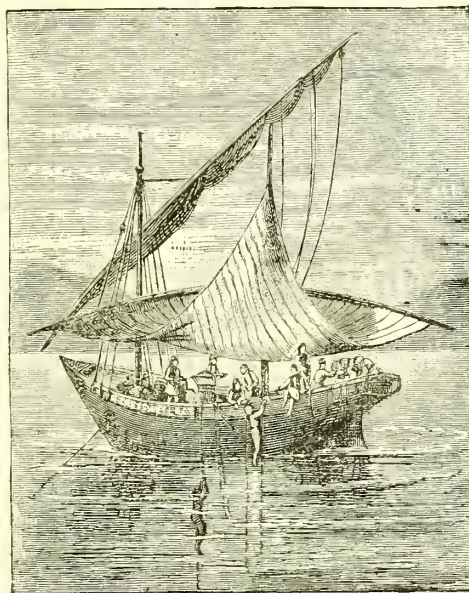
**RIVER HEAD OIL MILLS COMPANY
LOUTH, LINCOLNSHIRE,**

Sole Makers in England of Cold-drawn African Ground Nut Oil.

SPONGES.



RECEIVED
THE
HIGHEST
AWARD
AT THE
ADELAIDE
EXHIBITION,
1887.



TRADE MARK.

BRANCHES:

GLASGOW.
DUBLIN.
LIVERPOOL.
PIRÆUS.
SMYRNA.
HAVANA.
NASSAU, N.P.

R. CRESSWELL & CO., LIM.

32 RED LION SQUARE, LONDON, E.C.

R. CRESSWELL, Managing Director.

This Business was established in 1850 by Mr. R. Cresswell, the senior partner of the well-known firm of R. CRESSWELL & CO., and is now carried on as a Limited Company, of which Mr. R. Cresswell is the Managing Director.

R. CRESSWELL & CO., LIM., can supply Sponges of every quality YIELDING MUCH BETTER VALUE than those offered by other firms.

We have had OUR OWN STAFF on the Mediterranean and Bahama Fisheries for the last 30 YEARS and fear NO COMPETITION.

SPECIAL LINES NOW ON SHOW SUITABLE FOR THE PRESENT SEASON.

Sample Cases of West Indian and Mediterranean goods sent forward on approval.

NEW ILLUSTRATED PRICE LIST POSTED ON APPLICATION.

PLEASE NOTE STYLE AND ADDRESS:

R. CRESSWELL & CO., LIMITED,
32 RED LION SQUARE, LONDON, W.C. ESTABLISHED 1850.

No connection with a new firm trading under a similar name in the same Square.

Just Published, Crown Octavo, Price 5s.

A PRACTICAL MANUAL OF VENEREAL AND GENERATIVE DISEASES:

Including SPERMATORRHEA, PROSTATORRHEA, IMPOTENCE, and STERILITY in Both Sexes.

By M. K. HARGREAVES, M.D.

LONDON: R. KIMPTON, 126 WARDOUR STREET, LONDON, W.

Now Ready, 633 pages, 5/6 10s free.

THE MEDICAL ANNUAL, 1883.—A Dictionary of New Remedies; a Dictionary of New Treatment, &c. &c.

"This admirable handbook improves vastly each year of issue."

Also Just Published, 432 pages, 4/ post free.

THE DICTIONARY OF NEW TREATMENT, reprinted from the Medical Annual, 1887, with the addition of Exhaustive Indices. Prescriptions, &c., are given in full.

"One of the most remarkable examples of publishing enterprise, and of its kind without an equal."

Bristol: JOHN WRIGHT & CO. London: HAMILTON, ADAMS & CO.

THE LONDON HOMŒOPATHIC HOSPITAL AND MEDICAL SCHOOL,

GREAT ORMOND STREET.

A NEW WARD, unoccupied for want of funds, is much needed for Male Patients, and will be opened as soon as sufficient funds to support it are received. The Hospital now contains eighty beds. Trained Nurses are sent out at moderate fees for Medical, Surgical, or Accouchement cases, the latter specially Certificated.

G. A. CROSS, Secretary.

The Chemist and Druggist of Australasia.

CONTENTS OF No. 5, Vol. 3. MAY 1, 1883.

Editorial Articles:—"The Pharmacy Board of New South Wales," "Pharmaceutical Society of New South Wales," "A School of Pharmacy for Queensland," "The Australasian Association," "The Dental Act, Victoria."

COLONIAL REPORTS.

New South Wales.—Pharmacy Board Official Report.
New Zealand.—Pharmacy Board of New Zealand and the Midland Pharmaceutical Association of New Zealand Official Reports.

Queensland.—Pharmaceutical Society: Report of Meeting.

South Australia.—Pharmaceutical Society: Report of Council Meeting.

Victoria.—Pharmaceutical Society of Australasia—Report of the Pharmacy Board of Victoria.

Letters from our special correspondents in Sydney, Brisbane, Adelaide, and Lanncoston.

Numerous Poisoning Cases—Proposed Dental Department at the Auckland Hospital—"What Country Chemists can Do."—"An Admixture in Twelve Doses."

(Copies may be obtained at the London Office, 42 Cannon Street E.C. 6d. each, or the journal will be supplied to extra-Australian subscribers at 5s. per annum.)

CHAVASSE'S WORKS, 2s. 6d. each.

ADVICE TO A WIFE, 190th Thousand.

ADVICE TO A MOTHER, 160th Thousand.

London: J. & A. CHURCHILL, 11 New Burlington Street.

IT WILL PAY YOU to send for Estimates to BOWERS BROTHERS, 89 BLACKFRIARS ROAD, LONDON, S.E10,000 Good Effective Handbills, 7½ in. by 5 in. from 12/6 Memorandums per 1,000 from 5/6
Superfine Fly Leaf Note Paper per ream 8/- Superfine Envelopes, name on flap per 1,000 4/ & 5/

A UNIQUE ADVERTISEMENT—CHILDREN AND THEIR AILMENTS: HOW TO CURE. A BOOK FOR MOTHERS.

Seed, Powder, Cash, Prescription and Recipe Envelopes in all qualities and in every style of printing, Counter and Show Bills, Trade Catalogues, Prices Current Business Circulars, and Ornamental Advertising Books at most moderate charges. Specimens and Estimates free. Terms—Cash with Order.

DON'T ORDER BEFORE SEEING BOWERS' TOILETTE GUIDE AND CALENDAR—CHEAP, GOOD, USEFUL.

Special Pamphlet prepared for efficient Advertising. New and Elegant Designs in Texts and Ornaments for effective Advertising.

THE WHOLESALE AND RETAIL Druggists' Price Book.

By D. ELLIOTT.

NEW EDITION, revised according to the British Pharmacopœia, 1885.

Pocket Size. Bound in Leather. Price 3s., Post Free 3s. 2d.

SAMPLES

FREE BY POST.

The Clinical Clerks' Guide to Urine Testing.

On 3-fold linen-lined card, 9 in. by 5 in.

Price 7d., Post free.

SILVERLOCK'S**CHEMISTS' COUNTER BILLS**GOOD QUALITY, 7½ × 5 ... 10,000, 15/ | SECOND QUALITY, 7½ × 5 ... 10,000, 12/6
" 9 × 5½ ... 10,000, 22/6 | " 9 × 5½ ... 10,000, 13/**CHEMISTS' SLIP LABELS**

FROM 1/ PER 1000; A REDUCTION ON LARGE QUANTITIES.

CHEMISTS' PILL LABELS

FROM 1/3 PER 1000; A REDUCTION ON LARGE QUANTITIES.

COPPER-PLATES FOR SLIP AND DISPENSING LABELS ENGRAVED FREE OF CHARGE.

Labels of every description, Price Lists, Illustrated Trade Catalogues, Prospectuses, Pamphlets, Show Cards, &c.

BELLOWS' Concentric Calculators.

A new and simple mode of ascertaining equivalents without the working of decimals, requiring no writing except the answer. Series A, for the conversion of Weights and Fluid Measures of the Metric System into English. For the use of Medical Students, Chemists, &c.

Price 3s. 2d., Post free.

H. SILVERLOCK,
Medical Label & General
Printer,
92, BLACKFRIARS ROAD,
LONDON. S.E.**Analytical Exercise Forms for Chemical Students.**

Arranged by H. BELCHER THORNTON.

Price 8d. per dozen Forms, Post free.

Vide Correspondence in 'CHEMIST & DRUGGIST,' Oct. 8, 1887.

DISPENSING LABELS.

"SIR,—A short time ago I had occasion to renew my stock of orange-coloured labels for lotions, and it struck me a few Indiarubber Stamps would be very useful, and would save my ordering a large supply of blanks. So I obtained stamps for 'The Lotion,' 'The Eye-Lotion,' 'The Liniment,' 'The Injection,' and 'The Wash.' With these I can make a printed heading to my labels suitable to the occasion. Yours truly, "HEDER."

Specimens suitable for Stamping on Blank Labels.

THE LOTION. THE LINIMENT.

On Brass Mount, with Box, Pad, Ink, and Distributor complete, 2/; or a set of 12 in a large Box, with Pad, Ink, and Distributor complete, 18/

POLLARD'S RUBBER STAMP WORKS

30 & 32 LUDGATE HILL, LONDON, E.C.

CORKS FOR CHEMISTS & DRUGGISTS

WE CAN OFFER A SPECIAL VALUE IN

Long Dispensing Corks, Long Vials
and Short Vials of all kinds,

including extra qualities especially prepared for Homœopathic Chemists.

Having secured a very large quantity of

CHEAP GINGER BEER CORKS

this year, we can offer a good line to buyers of these Corks.

BENITO, REMUS & CO.

Cork Merchants and Manufacturers,
12 ST. JAMES SQUARE, BRISTOL.

GENERAL ACCIDENT BUSINESS AGENTS WANTED.

Chemists and Druggists invited
TO APPLY TO

**EMPLOYERS' LIABILITY ASSURANCE
CORPORATION, LIMITED,**

84-5 King William Street, London, E.C.



A PURE CUP OF TEA
Is obtained in 3 mins. by means of
HOBBS' Patent Antitannic Infuser.
Better Flavour and Less Tea used than with the teapot.

READ OUR PAMPHLET. GRATIS and POST FREE.

For Single Cups of Tea Hobbs' Infuser is unequalled. Its cost is soon repaid by the saving in the quantity of tea used: Price 1s. 6d. from all China Dealers, Grocers, Chemists, &c., or post free direct, 1s. 9d.

HOBBS' INFUSER CO., Limited,
Offices:—12, WOOL EXCHANGE, LONDON, E.C.; CREWKERNE; and 62, NORTH STREET, BRIGHTON.

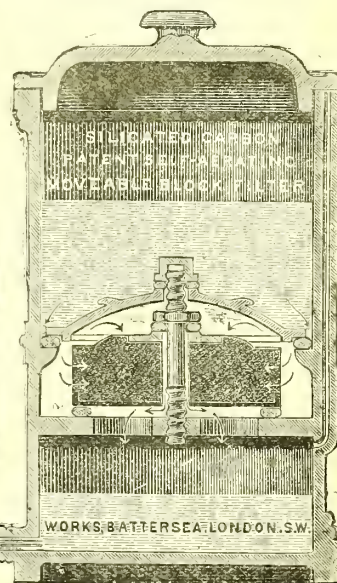
FLATNESS OF TASTE

SO COMMON IN FILTERED WATER,

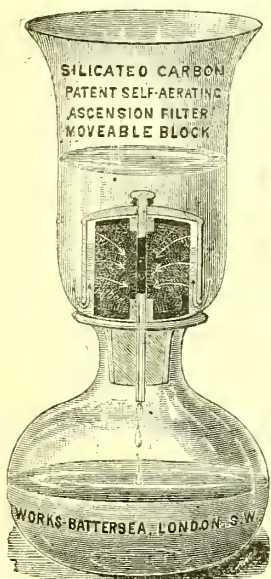
OBVIATED BY USING SILICATED CARBON FILTERS AERATED

By means of which the water is Aerated and Filtered simultaneously, rendering it, even after boiling, Pure, Bright, and Palatable.

The Silicated Carbon Block can be Instantly Removed, leaving the whole of the Filter Open for Inspection and Cleansing.



Domestic Filters.



Glass Table Filters.

FOR PRICES AND FULL PARTICULARS, WRITE TO THE
SILICATED CARBON FILTER CO., BATTERSEA, LONDON, S.W.

LIBERAL DISCOUNT TO THE TRADE.

LIBERAL DISCOUNT TO THE TRADE.

Second Financial Year commences July 1st, 1888.

HAYDON'S CHEMISTS DEFENCE AGENCY.

Manager—W. F. HAYDON, Pharmaceutical Chemist.

(For ten years Secretary to the Chemists and Druggists' Trade Association of Great Britain.)

Solicitors—GLAISYER & PORTER.

(HENRY GLAISYER, LL.B., was for ten years Solicitor to the above-named Association.)

REASONS WHY YOU SHOULD SUBSCRIBE TO THE AGENCY—

1. Its operations are directed by men who have had eleven years' practical experience in defending actions under the Apothecaries Act, the Sale of Food and Drugs Act, the Weights and Measures Act, the Trade Marks Act, &c., &c., and in prosecuting offenders under the Pharmacy Act.
2. If an action is commenced against you in a matter of general trade interest, you will ensure defence in a Court of first instance, either Police, County, or High Court, if you have a defensible case. If no sound defence can be set up you will be advised free of cost as to the best means of settlement.
3. You will be entitled to advice free of charge in all matters of general trade interest.
4. You can secure the above-named advantages upon payment of Half-a-Guinea per annum. *The pecuniary liability of Members is strictly limited to the subscription for the current year.*

N.B.—No penalties or costs of prosecution will be paid by the Agency. The Agency will not in the ordinary course of its operations undertake prosecutions of any description, nor take action in matters of a purely personal character, register trade marks, advise on trade mark disputes, nor institute nor defend civil actions for the recovery of trade debts, but it will be prepared to undertake these and other matters of similar character upon moderate terms to be settled by arrangement. No Member will be entitled to advice or defence until two months after payment of his first subscription.

Offices of the Agency—Exchange Buildings,
BIRMINGHAM, June 30th, 1888.

W. F. Haydon.

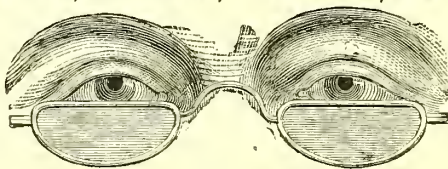
Remittances should be crossed "LLOYDS, BARNETTS & CO."

J. RAPHAEL & CO.

CHEAPEST HOUSE IN THE TRADE FOR

SPECTACLES, FOLDERS, FIELD, OPERA, & MARINE GLASSES.

Wholesale only.



TRADE  MARK

Repairs Returned Same Day.

13 OXFORD STREET, LONDON, W.

BOTWRIGHT & GREY

(Late A. H. BOTWRIGHT.

Established 1865),

MANUFACTURING OPTICIANS, Wholesale and for Exportation only, 13 SPENCER ST., CLERKENWELL, E.C.

MASON'S

IMPROVED OPTOMETER

(REGISTERED).

Price 17s. 6d. each, net.

MANUFACTURED ONLY BY OURSELVES.

OCULISTS' TRIAL CASES, M.D. STANDARD.

SAMPLES SENT ON APPLICATION.



This instrument, while saving time and trouble in testing accurately, denotes the proper strength glasses required by persons suffering from long, short, or old sight, and is admitted by scientists to be one of the best instruments in use for measuring the loss of power of the eye—full and complete instructions with each.

Special Easy and Accurate Fitting Spectacles for Astigmatic and Prismatic Lenses, same as supplied to the Ophthalmic Hospitals.

Repairs, of every description, in every case we execute and send back by return post.

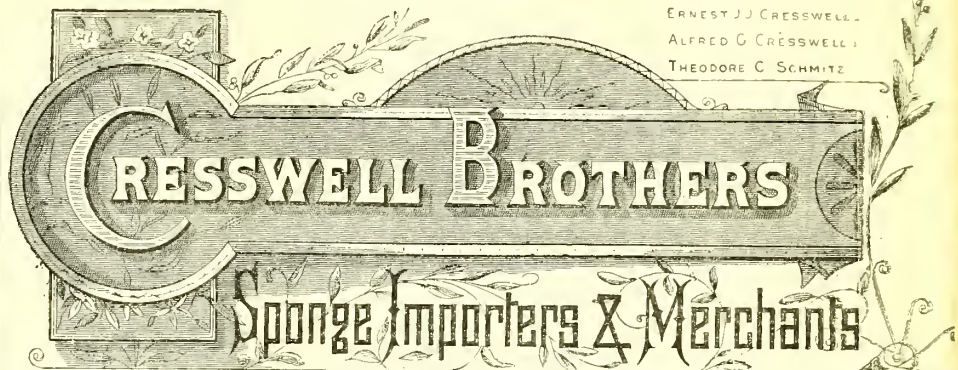
Oculists & Hospital Prescriptions prepared. Sphero Cylinders & Prisms worked to order and in every case by return of post SHOW CARDS AND PRESCRIPTION FORMS WITH CUSTOMERS' NAMES SUPPLIED GRATIS.

HEAD-QUARTERS FOR SPONGES.



Telegraphic Address—"CUBANS LONDON."

FREDERIC R CRESSWELL,
ERNEST J J CRESSWELL,
ALFRED G CRESSWELL,
THEODORE C SCHMITZ



SPONGES OF EVERY DESCRIPTION DIRECT FROM
GREECE, TURKEY, THE BAHAMAS, FLORIDA & CUBA

2, RED LION SQUARE, LONDON, W.C

(Next to Church)

ALSO AT Nos. 1 & 13A RED LION SQUARE.

CRESSWELL BROTHERS' SPONGES.

YOU CANNOT GET OVER FACTS!

A WIDE DISTINCTION should be made between firms who merely have connections on the Fisheries, and CRESSWELL BROTHERS, who have their own Buildings, Plant, Captains, and Staff there, under the control of a resident and responsible Manager, who is also a relative. These unique advantages enable them to carry out what they claim, viz., that they sell every quality at lower prices than those of any other firm. Their stock is many times larger than any other, and buyers can consequently make better selections from it than they can elsewhere.

CRESSWELL BROTHERS claim:—

(1) STATEMENT:

That their Sponges are the cheapest.

REASON:

Being the only firm with its own establishment and staff at the Sponge Fisheries, they save all intermediate profits.

PROOF:

All buyers find their goods to be the best selected and the lowest in price.

(2) STATEMENT:

That their Sponges are the most satisfactory.

REASON:

Their stock being the largest in the world, their Customers have the benefit of obtaining a selection from such a variety of kinds and qualities as ensures their getting *what they want*.

PROOF:

The possession of an unequalled reputation all the world over, and the largest sale everywhere.

Buyers of Sponges should never purchase without first writing to CRESSWELL BROTHERS for samples and prices.

WRITE FOR NEW EDITION OF ILLUSTRATED PRICE LIST.
CRESSWELL BROTHERS, 1 & 2 Red Lion Sq. (next to Church), LONDON, W.C.

No connection with a Company trading under a similar name in the same square.

CAUTION.

TO CHEMISTS AND DRUGGISTS, AND OTHERS.

Many of our customers, especially those abroad, having complained that when ARTICLES OF OUR MANUFACTURE have been ordered through Merchants and Wholesale Houses, other and inferior goods have been substituted, we beg to inform the Trade that to insure the supply of OUR MANUFACTURES in future all our BEST QUALITY GOODS will bear Trade Mark as annexed.

S. MAW, SON & THOMPSON.

ALDERSGATE STREET, LONDON.

S. MAW, SON & THOMPSON'S

TRADE MARK.



TO IMITATE WHICH IS FELONY.

The following SPECIALTIES are well worth the attention of the Trade:—

- | | |
|--|---|
| MAW'S ADHESIVE PLASTER | MAW'S CATHETERS, Silk Web, Unbreakable |
| MAW'S AMBROSIAL SHAVING CREAM | Eyes, and Solid Ends, Patent |
| MAW'S ANTISEPTIC INHALERS | MAW'S CHERRY TOOTH PASTE |
| MAW'S ARECA TOOTH PASTE | MAW'S CHEST PROTECTORS |
| MAW'S AROMATIC TOOTH PASTE | MAW'S CLINICAL THERMOMETERS |
| MAW'S ATMOSPHERIC ODORATORS for Per- | MAW'S COCAINE SPRAYS |
| fumery | MAW'S COMPRESSED CAMPHOR |
| MAW'S AURILAVES | MAW'S CORK PRESSERS |
| MAW'S BACK RESTS AND BED TABLES for | MAW'S CORN RUBBERS |
| Invalids | MAW'S CONSTANT & INDUCED BATTERIES |
| MAW'S BANDOLINE | MAW'S COSMETIQUE |
| MAW'S BATH THERMOMETERS, Latest Im- | MAW'S COTTON WOOL |
| provements | MAW'S COURT PLASTER |
| MAW'S BLEEDING BASINS | MAW'S COVERED POTS FOR DISPENSING, &c. |
| MAW'S BOUGIES & CATHETERS, Elastic Gum | MAW'S DISPENSING BOTTLES |
| MAW'S BOUGIES & CATHETERS, Silk Web | MAW'S DOMESTIC MUCILAGE |
| MAW'S BREAST RELIEVERS | MAW'S EARTHENWARE INHALERS |
| MAW'S BRILLIANTINE | MAW'S ELASTIC STOCKINGS, KNEE CAPS, &c. |
| MAW'S BRONCHITIS KETTLES | MAW'S ELECTRO-MAGNETIC MACHINES |
| MAW'S BROWN WINDSOR SOAP | MAW'S ENEMA APPARATUS |
| MAW'S BRUSH AND SPONGE POWDER | MAW'S ENEMA APPARATUS (HIGGINSON'S) |
| MAW'S CACHOUS AROMATISES | MAW'S ENEMA APPARATUS (HIGGINSON'S), |
| MAW'S CAPILAVES | with Disconnecting Tubes |
| MAW'S CAPSULES | MAW'S FEEDING BOTTLES |
| MAW'S CATHETERS, Silk Web Unbreakable Eyes | MAW'S FLESH GLOVES. RUBBERS, &c. |

S. MAW, SON & THOMPSON'S SPECIALTIES—continued.

MAW'S FLOATS AND WICKS	MAW'S PERFUMERY
MAW'S FULLERS' EARTH	MAW'S PESSARY MOULDS
MAW'S FUMIGATING PASTILLES	MAW'S PILL BOXES
MAW'S FUMIGATING RIBBON	MAW'S PILL MACHINES
MAW'S GAS STOVES	MAW'S POMADE BOTTLES
MAW'S GERMAN FLOATS	MAW'S POMADES
MAW'S GLYCERINE JELLY	MAW'S POWDER FOLDERS
MAW'S GOLD BEATERS' SKIN	MAW'S RESPIRATORS
MAW'S GRADUATED MEASURES	MAW'S RETORT STANDS
MAW'S HAIR BRUSHES	MAW'S ROOT CUTTERS
MAW'S IMPROVED BINAURAL STETHO- SCOPES	MAW'S ROSE LEAF POWDER
MAW'S IMPROVED DOUCHES	MAW'S SAUCE PIQUANTE
MAW'S IMPROVED HEARING TRUMPETS, Nickel Plated	MAW'S SCALES AND WEIGHTS
MAW'S IMPROVED INDIARUBBER URINALS	MAW'S SEALING WAX
MAW'S IMPROVED SUBCUTANEOUS SYRINGES, with Huggett's Permanent Solutions	MAW'S SMELLING BOTTLES
MAW'S IMPROVED VAGINA SPECULUMS, Covered with Web and Elastic Gum	MAW'S SODA WATER TAPS
MAW'S INDIARUBBER TEATS	MAW'S SPIRIT LAMPS
MAW'S INHALERS	MAW'S SPONGE BAGS AND BATHING CAPS
MAW'S ISINGLASS PLASTER	MAW'S SPRAY PRODUCERS
MAW'S LABEL DAMPERS	MAW'S STEAM AND HAND BALL SPRAYS for Antiseptic Purposes
MAW'S LIME JUICE AND GLYCERINE	MAW'S SUPPOSITORY MOULDS
MAW'S LINT	MAW'S SURGICAL APPLIANCES
MAW'S LIPSTICKS	MAW'S SURGICAL INSTRUMENTS
MAW'S MARKING INK	MAW'S SYRINGES
MAW'S MEDICINE CHESTS	MAW'S TEETHING PADS
MAW'S MENTHOL CONES	MAW'S THERMOMETERS
MAW'S MORTARS AND PESTLES	MAW'S TOILET POWDER
MAW'S MOUTH AND THROAT SPRAYS	MAW'S TOOTH BRUSHES
MAW'S NIPPLE SHIELDS	MAW'S TOOTH PICKS
MAW'S OILED SILK	MAW'S TRUSSES
MAW'S PALETTE AND PILL KNIVES	MAW'S VIOLET POWDER
MAW'S PERFUMED TOILET SOAPS	MAW'S WAFER PAPER
	MAW'S WARBURG'S TINCTURE
	MAW'S WATCH SPRING PESSARIES
	MAW'S WAXED PAPER
	MAW'S WHITE DEMY PAPER

TAYLOR'S SUPER A1 LINT.

SPECIAL TERMS TO SHIPPERS. SAMPLES AND QUOTATIONS ON APPLICATION.

For further particulars see Quarterly Price Current and Book of Illustrations, which will be forwarded on application, enclosing Business Card, post free to any part of the world.

S. MAW, SON & THOMPSON,

MANUFACTURERS OF

SURGICAL INSTRUMENTS & DRUGGISTS' SUNDRIES,**7 to 12 Aldersgate Street, LONDON, E.C.**

EXCHANGE COLUMN.

This section of "The Chemist and Druggist" must be closed for press by Thursday noon of each week. Remittances payable to EDWARD HALSE.

TERMS.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of 1d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C." and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as e.g., £1 10s. 6d.

DEPOSIT OF MONEY. In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us, accompanied by a commission of 6d. if the amount is £3 or under; and 1s. if over that sum. We acknowledge receipt of deposit to both parties, and hold the money until we are satisfied that either the goods are returned to their original owner or the purchase is completed.

Postal orders and cheques sent as deposit must be made payable to Edward Halse, and crossed "Martin & Co."

FOR DISPOSAL.

Drugs and Chemicals.

Musk (artificial), two forms, solid and liquid; ambergris (artificial), ambergris essence, splendid article; the lot for 1s. 6d. Alexander Dunn, 109 Napier-hall Street, Glasgow.

Literature.

Cassell's "Family Physician," in two vols.; what offers? North, Chemist, Grimsby.

Willis's "Botanical Companion" and "Pharmacy," half price, new. Robin, Bridgend, Perth.

"Pharmacographia," Fleckiger and Hanbury's, second edition, nearly new, post-free 14s. 6d. 11/247.

"The Family Physician," by the physicians of the London hospitals, in four volumes; cost 35s.; price 25s., or offers; nearly new. Hayton, Thorne, Yorkshire.

"The Chemist's and Dispenser's Vade Mecum," wholesale, 3s. 9d. post-free: Dr. Paris' "Life of Sir Humphrey Davy," with fine portrait, 4to., good copy. "W. C.," 32 Rignold Road, S.E.

Formulae.

Reliable recipes, 6d. each; full set of 130, neatly copied in book, 7s. 6d.; send for list. "Chemist," Edwards, Wye, Kent.

Excellent formula for cod-liver oil emulsion with hypophosphites; satisfaction certain; 7 stamps. G. Paley, 89 High Street, Boston, Lines.

An excellent recipe for the cure of neuralgia, toothache, &c.; will cure while patient waits; genuine; a bargain. For particulars, apply to G. W. Masters, White Lady Aston, Worcester.

A fact! Bad times!! You can more than double your profits by introducing following saleable preparations. Recipes for making, with full instructions, post free, 2s. 8d.; list of 400 free. "Digestive Syrup," vastly superior to Seigel's, more pleasant taking, real medicinal worth, half profit; "The Specific," cures instantly when all other remedies fail, acts like magic, without danger; "Embrocatio Alb.," creamy white inseparable emulsion (like Elliman's), equally good for man or beast; "Hop Tonic," better always than American, grand liver tonic, brilliant, permanent, pleasant, under 1s. pint; "Glycerine Cream," elegant sea-side requisite, cooling and refreshing, preferred to Beetham's, pips splendidly; "Herbalade," concentrated extract like Mason's 6d. bottles, costing half, make 5 gallons of brilliant, sparkling, appetising, thirst-allaying, and comforting drink, once tasted always wanted. T. Brooks, Chemist, Louth, Lines. My recipes have cost over 200l.

14

Proprietary Articles.

Three each Rackham's and World's pills, 1s. 1½d.; one nybbal, 1s. 1½d. North, Grimsby.

Soda-water Machinery.

One No. 1 soda-water machine, by Barnett & Foster, including 2-inch pump, gauge and solution pan, for hand or steam power; 1 No. 3 soda-water machine, complete, by Hayward Tyler & Co.; gas-holder, tub and weight, complete, for No. 1 plant; 1 copper gas bell only, 4 feet by 2 feet; 1 leaden generator for No. 1 plant; 1 single wiring stand; 1 3 inch vertical deep-well pump, complete; 1 double wiring stand; 1 corking rack; 1 Pritchard's syringing-pan; also a quantity of plain second-hand syphons, by Mondolot, Barnett & Foster, Gerant, and other makers, and about 50 doz. plain pint syphons (second-hand), cheap. Apply, Idris & Co., Ascham Street, Kentish Town, London, N.W.

Shop Fittings.

Mahogany homeopathic show-case and contents, shelves at back, 15s. Smith, Chemist, Lullow.

Four chests mahogany-fronted drawers, gold-labelled; three glass cases, four window carboys, desk, about eight doz. shop bottles, black store ditto, two window enclosures. Webb, Calne.

The stock and fittings of a surgery, consisting of 2 dozen 4½-oz. stoppered bottles, with quarts and ½-lb. stoppered; a counter, 10 feet long by 30 inches wide, mahogany top; a nest of 20 drawers; scales; 3 4-gallon carboys; the whole to be disposed of at a low price owing to illness of owner. Enquire "Melicus," 9 Battersea Park Road.

Mahogany dispensing screen, 7 ft. long, with mirror centre and marble slab, 7½; 12-ft. range mahogany drawers, with bevelled plate-glass labels, 9½ 10s.; 12-ft. range polished pine ditto, gold labelled, 6½ 12s.; 170 new gold-labelled shop rounds, syrup bottles, and ointment jars, 9½ 10s.; 24 4-lb. best pink jars, gold-labelled, 4s. 6½ each; 6 4-gall. carboys, 10s. each; 4 6-gall. ditto, 14s. each; 1 10-gall. ditto, 20s.; 3-ft. dispensing-case, with handsome tablet and glass shelves, second-hand, 55s.; 6 ft. mahogany wall-case, with bent-glass front, 12½; mahogany case and desk, 55s.; 8-ft. range second-hand drawers, with plate-glass labels, 6½; 24 2-lb. blue jars, gold labelled, 36s.; 24 3-lb. ditto, 43s.; 12 4-lb. ditto, 30s.; 4-ft. bent plate-glass case, 4½; second-hand stoppered rounds, sufficient for a shop, a bargain; second-hand 24-pill machine, 12s.; second-hand tincture-press, 1-qr. R. Tomlinson & Sons, Bond Street, Constitution Hill, Birmingham.

Miscellaneous.

Microscopic objects, from 5s. doz.; lists. Heury Ebbage, 344 Caledonian Road, London.

Four dozen quarts Apollinaris; what offers Morris, Astley Bridge, Bolton.

Sherwin's No. 3 mixer, cost 37. 10s.; also strong sugar-grinding machine; cash or goods. Breeze, Chemist, Devonport.

54-inch "Matchless" bicycle for sale, half-plated, balls, splendid condition, all accessories lowest, 6½. E. R. Babbage, Bridgwater.

Students.—Fresh belladonna specimen, with flower, sent post-free for 9 stamps. W. Willdey, Curdworth, near Birmingham.

10 gross extra dispensing corks, 4-oz. and 8-oz.; 10s. 6d. free; sample gross, 14 stamps Judd, Sidcup.

10 oz. Hewlett's liq. cinchon., quite recent, unopened; 1 oz. quinae phosp.; 1 doz. Cathery's dog soap; 3 Lloyd's food.

100 lbs. bright orange shellac, 6d. lb.; 20 Spooner's milk substitute, 4s. 9d. bags for 3s. each. Griffith, Pharmacist, Weston-super-Mare.

Allen's vapour bath complete, large marble slab, portable india-rubber bath, leather medicine chest, fitted; some small glass mortars. Rogers, Warminster.

WANTED.

Two-gallon glass percolator; state lowest price. Bowers Bros., Chester.

One 6 gallon swan-neck carboy. Bell & 100 Commercial Road, E.

Two specie-jars, not too large; quote Scholey, Burnham Market, Norfolk.

"Manchester Infirmary Pharmacopoeia," price. 243.16.

"Throat Hospital Pharmacopoeia," Beasley's "Pocket Formulary," plate-glass aquarium. Stubbs, Chemist, Emsworth.

Counter, with glass cases in front; wide-mouth store bottles for top shelves, George Brisley, Bexhill, Sussex.

Shop rounds, in good condition, 70 1-lb. wide-mouth; 50 20, and 30-oz., narrow-mouth, be relabelled. Bell & Co., 100 Commercial Road, E.

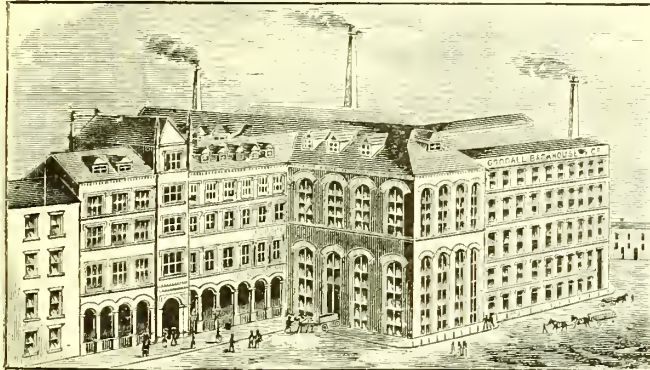
Attfeld's "Chemistry," Willis's "Materia Medica" (coloured), and Wotton's "Problems" (last editions). Address, stating lowest prices, E. Watson, Magnet, 21 Dale Street, Liverpool.

Attfeld's "Chemistry," Bentley's "Botany," Cook's "Botany," British Pharmacopoeia, "Selecta Prescripta," Willis's "Materia Medica," Willis's "Pharmacy," latest editions; send particulars and price. Bamford, Grosvenor Square, Staleybridge.

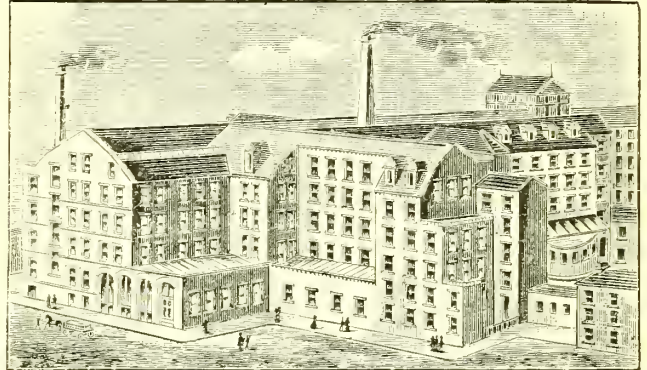
GOODALL, BACKHOUSE & CO.'S

PREMISES AT LEEDS,

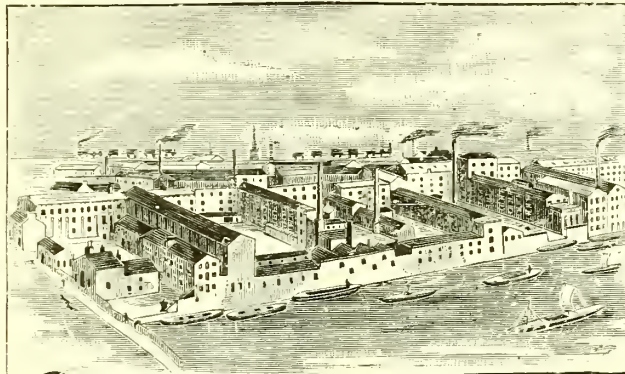
CONTAINING A FLOOR AREA OF EIGHT ACRES.



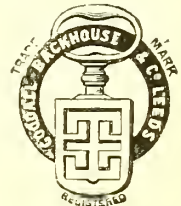
Warehouse and Offices, White Horse Street.



Warehouse and Offices, White Horse Street.



Manufactory, Sovereign Street. Frontage 1,043 feet.



GOODALL'S HOUSEHOLD SPECIALITIES.

YORKSHIRE RELISH,

MOST DELICIOUS SAUCE IN THE WORLD
In Bottles, 6d., 1s. and 2s. each.

GOODALL'S BAKING POWDER,

THE BEST IN THE WORLD.
1d. Packets; 6d., 1s., 2s., and 5s. Tins.

GOODALL'S EGG POWDER,

ONE 6d. TIN IS EQUAL TO 25 EGGS.
In 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

GOODALL'S CUSTARD POWDER,

DELICIOUS CUSTARDS WITHOUT EGGS.
In Boxes, 2d., 6d., and 1s. each.

GOODALL'S QUININE WINE, B.P.

BEST TONIC YET INTRODUCED.
Bottles, 6d., 1s., and 2s. each.

GOODALL'S BLANCMANGE POWDER,

DELICIOUS BLANCMANGE IN A FEW MINUTES. In Boxes, 6d. and 1s. each.

Proprietors—**GOODALL, BACKHOUSE & CO., LEEDS.**

PATENT MEDICINES AND GROCERS' SUNDRIES.

Monthly Price List of Patent Medicines, Grocers' Sundries, &c., will be sent post-free on application to

GOODALL, BACKHOUSE & CO., LEEDS.

GOODALL'S GINGER-BEER POWDER,

MAKES THE BEST GINGER BEER.
Packets, 3d. and 6d. each.

GOODALL'S BRUNSWICK BLACK,

FOR PAINTING STOVES, GRATES, IRON, TIN, &c.
6d. and 1s. Bottles.

GOODALL'S LAVENDER WATER,

A RICH AND LASTING PERFUME.
In Bottles, 1s., 2s., 5s. and 10s. 6d. each.

GOODALL'S PLATE POWDER,

FOR POLISHING AND CLEANING ALL METALS.
Boxes, 6d., 1s., and 2s. each.

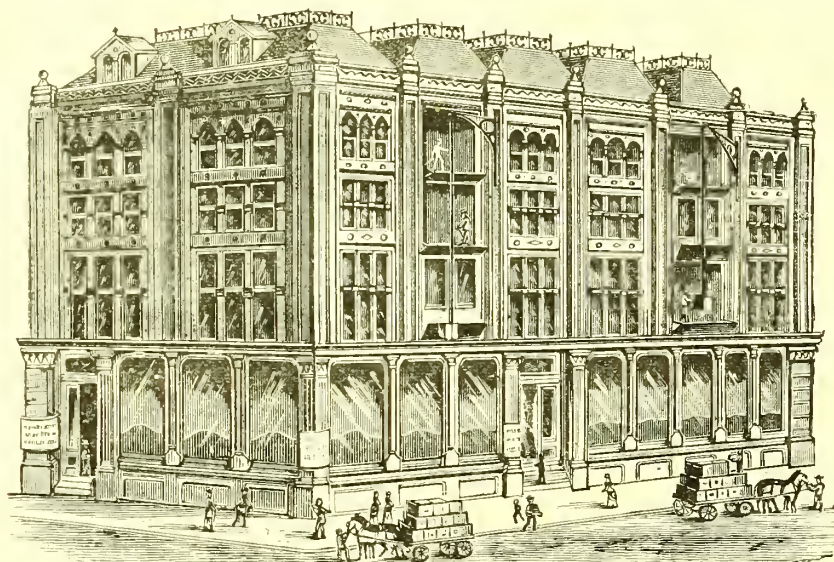
GOODALL'S CALF'S FOOT JELLY,

PURE, STRENGTHENING AND PALATABLE.
In Bottles, 6d., 1s., and 2s. each.

HESELTINE'S

THE PREMIER TEA OF INDIA AND
CEYLON, IS THEIR SPECIAL IMPORTATION
AND THE PERFECTION OF TEA.

REGISTERED "TAPRABUNDA" TRADE MARK.



OFFICES AND DUTY PAID WAREHOUSES.

For Retail at 1s. 8d., 2s., and 2s. 6d.

In Lead Packets, $\frac{1}{4}$ lb., $\frac{1}{2}$ lb., and 1 lb.

Terms of Agency, and Samples of the Tea, on application.

WM. HESELTINE & SON,

56 Wilson Street, and 1 & 3 Earl Street, Finsbury,

LONDON, E.C.

AGENTS WANTED WHERE NOT ALREADY REPRESENTED.

APPOINTMENT OF AGENTS.

UNITED KINGDOM TEA COMPANY,

21 MINCING LANE, LONDON,

Are prepared to entertain a limited number of applications from Traders of undoubted standing to be appointed Agents for the sale of the Company's Teas. A Liberal Commission will be allowed. The Agency will be found to be a valuable one, entailing little, if any, trouble to the Agent, in addition to which it will be the means of bringing numerous customers to him, who will patronise his general business.

Address the Secretary—**UNITED KINGDOM TEA COMPANY, LIMITED,**
Offices—21 MINCING LANE, LONDON. E.C.

SPRING BLOSSOM

CEYLON TEA.

AGENTS WANTED
WHERE NOT REPRESENTED.

FRAGRANT AS THE FLOWERS OF SPRING.

Packed in New Patent Air-tight Circular Boxes. Most Novel and Attractive Package.

In $\frac{1}{4}$ -lb., $\frac{1}{2}$ -lb., and 1-lb. Boxes, to sell Retail at 2/-, 2/6, and 3/- per lb. Set of three $\frac{1}{4}$ -lb. samples post free for 2/- in stamps

SEND TRADE CARD FOR PRICE LIST AND TERMS TO

CAVE, JOHNSON & CO., WHOLESALE TEA AND COFFEE DEALERS, 8 LIME ST., LONDON, E.C.

To H.R.H. The Prince of Wales, The Empress of Germany, &c.

BRAND & CO.'S
PEPTONES
OF
BEEF,
MUTTON,
VEAL,
AND
CHICKEN.



THIRTY-SIX PRIZE MEDALS AWARDED TO THE FIRM.

FRY'S
Pure Concentrated
COCOA

GOLD MEDALS
EDINBURGH AND LIVERPOOL EXHIBITIONS



TRADE MARK.

Prepared by a new and special scientific process securing extreme solubility, and developing the finest flavour of the cocoa.

J. S. FRY & SONS, BRISTOL, LONDON, & SYDNEY, N.S.W.

BROOKE, BOND & CO.'S CHEMISTS' TEA AGENCY



We are open to receive applications for our Tea Agency from Chemists, Confectioners, & others.

A good Agency pays the Shop Rent.

Our Agents are making substantial additions to income by offering our Teas. Of this we have proof—positive, ample, overflowing!

Prospectus and Samples free on application.

BLACK OR MIXED TEAS, at 14, 18, 2-, 28, and 3-, in $\frac{1}{4}$, $\frac{1}{2}$, and 1 lb. Packets.

Whoever introduces OUR TEAS to the consumer will earn a safe and regular income. Our TEAS are widely and favourably known. CHEAPNESS at Brooke, Bond & Co. means not low price merely—anybody can quote low prices—but BEST for LEAST MONEY. Quality is the essence of the question. Money saved is money earned, and you almost double the buying power of your money when you buy your Tea from BROOKE, BOND & Co. IN BROOKE, BOND & CO.'S TEAS PRICE AND QUALITY CLASP HANDS.

BROOKE, BOND & CO., Wholesale and Retail Tea Dealers, 17 Piccadilly and 29 Market Street, **MANCHESTER.**

PEARSE & WHEATLEY, 42 MINCING LANE, LONDON

(Telegraphic Address—PACIFICUS LONDON.)

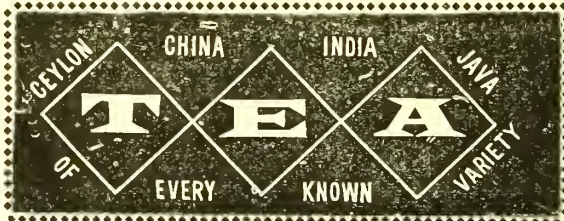
WHOLESALE DEALERS & EXPORTERS OF TEA, COFFEE, ETC.

SUPPLY AT LOWEST MARKET RATES EITHER FOR HOME CONSUMPTION OR EXPORT.

In original Boxes, Half Chests, or Chests, as imported.

Duty Paid or under Bond.

Prices and Samples on application.



Or in Leaden or Foil Packets ($\frac{1}{4}$ -lb., $\frac{1}{2}$ -lb., 1-lb., &c.),

Or in kilos., $\frac{1}{2}$ kilos., or fractional parts, for countries using these weights.

Fancy Tin Boxes any size or weight.

SPECIAL BLENDS OF TEA (Duty-paid prices quoted).

No. A, 10d.	No. T, 11d.	No. 1, 1/	No. 2, 1/2	No. 2a, 1/3	No. 3, 1/4	No. 3a, 1/5	No. 4, 1/6	No. 4a, 1/7½	No. 5, 1/9	No. 5a, 1/10½	No. 6, 2/	X, 2/4
----------------	----------------	--------------	---------------	----------------	---------------	----------------	---------------	-----------------	---------------	------------------	--------------	-----------

In Boxes, 20 lbs. or 40 lbs.; $\frac{1}{2}$ -Chests, 60 lbs.; or Chests, 100 lbs. 60 lbs. carriage paid to any Station in England or Wales. Terms—Net Cash with order.

CEYLON TEAS (PURE)—
IN LEAD PACKAGES ($\frac{1}{4}$ -lb., $\frac{1}{2}$ -lb., or 1-lb.)
Most attractively labelled.

Culloden	Grange	Shaan	Orwell	Mooloya	Pen-y-lan	St. Ley's
1 4	1 6	1 8	1 10	2 2	2 6	2 9

Duty-paid Prices.

(For Export under Bond, 6d. per lb. less.)

Export Department.—Teas or Coffees in Bond. Shipped to any part of the world. Terms, f.o.b. London; against banker's credit or remittance. Samples, Price Current, and every information on application.

COFFEES

AT MARKET PRICES.

RAW COFFEES (Duty 14s. cwt.).
Rio, Santos, Costa Rica, Mocha, East India, Mysore, Naidoobatum, Jamaica, Porto Rico, Ceylon, Guatemala, Manila, Java, &c.

ROASTED COFFEES (Duty Paid).

10½d., 1/1, 1/2, 1/3, 1/4; Mocha, 1/5.

1n Bags, 28 lbs., 56 lbs., or 112 lbs. net. Bags free

Also supplied Ground in 7-lb., 14-lb., 28-lb., or 56-lb. tins.

THE NEW FRENCH COFFEE—CAFÉ FRANCAIS to sell at 10d., 1/1, 1/4, and 1/6, in $\frac{1}{4}$ -lb., $\frac{1}{2}$ -lb., and 1-lb. Cans etc. Most tastefully labelled, without any firm's name appearing.

MITRE TEA.

COMFORT & PROLONG YOUR EXISTENCE

BY DRINKING

MITRE TEA.



Mitre "Broken Leaf"	s. d. 1 4
Mitre "Broken Am. Pekoe"	1 8
Mitre "Thrift" (whole leaf)	1 8
Mitre "Kee-Mun" ...	2 0
Mitre "Amgoorie" ...	2 6



Fac-Simile of Show Card distributed Gratis to all Agents.

MITRE TEA.



Mitre "Broken Leaf"	s. d. 1 4
Mitre "Broken Am. Pekoe"	1 8
Mitre "Thrift" (whole leaf)	1 8
Mitre "Kee-Mun" ...	2 0
Mitre "Amgoorie" ...	2 6

Sold by Specially Selected Agents. Wrapped in $\frac{1}{4}$ -lb., $\frac{1}{2}$ -lb., & 1-lb. Parcels.

VALUABLE AGENCY.

Framed Show Cards, Enamelled Iron Tablets, Posters, Window Transfer, and Handbills with Agent's Name on supplied free. Newspaper and Railway Station Advertisements to suit the requirements of Agents. Applications for Agencies where unrepresented will receive prompt attention. Price Current and Pamphlet, with Terms, post free.

KEARLEY & TONGE, MITRE SQUARE, LONDON, E.C.

ALDGATE,

HOLBROOK'S WORCESTERSHIRE SAUCE

HOLBROOK'S LONDON RELISH

HOLBROOK'S PURE PICKLES

NOTICE.

THE BIRMINGHAM VINEGAR BREWERY COMPANY, LIMITED, the
Plaintiffs in the Action of THE BIRMINGHAM VINEGAR BREWERY
COMPANY, LIMITED, Plaintiffs,

and

THE LIVERPOOL VINEGAR COMPANY and Mr. DANIEL HOLBROOK,
Defendants,

Desire to draw the attention of the public and the trade to the Order made in this
Action, on Motion on the 11th June, 1888, by his Lordship Mr. Justice North. The
Order, after the usual prefatory words, was to the following effect :—

“ This Court doth order that the Defendants, the Liverpool Vinegar Company and
“ William Daniel Holbrook and each of them, their and each of their servants, agents
“ and travellers, be restrained until judgment in the Action, or until further order, from
“ selling or allowing to be sold, or representing or causing or allowing to be repre-
“ sented, any goods manufactured by the Defendant Company as being the goods known
“ as ‘ Holbrook’s Worcestershire Sauce,’ ‘ Holbrook’s London Relish,’ and ‘ Holbrook’s
“ ‘ Pure Pickles,’ and from representing or causing or procuring to be represented, or
“ doing anything which shall lead to the belief that the articles manufactured and sold
“ by the Defendant Company are the goods or manufacture of the Plaintiffs, or that
“ the Defendants are the Proprietors of the articles known by the aforesaid names.”

The Birmingham Vinegar Brewery Company, Limited, will continue to use the
labels bearing the title of “ Holbrook & Co.” in connection with the above-mentioned
articles substantially in the form adopted by them since the incorporation of the Com-
pany. The Company will protect their right to the names above mentioned and to the
labels against any person or firm who may attempt to counterfeit them, or to manu-
facture or sell articles labelled or wrapped up in such a manner as to induce the public
to believe that they are the goods known as “ **Holbrook’s Worcestershire
Sauce,**” “ **Holbrook’s London Relish,**” or “ **Holbrook’s Pure
Pickles,**” which for so many years have been manufactured and sold by the

BIRMINGHAM VINEGAR BREWERY CO.

RIDGE'S FOOD

is the BEST,
and has the
LARGEST SALE
in the World
of any Infant's
Food.

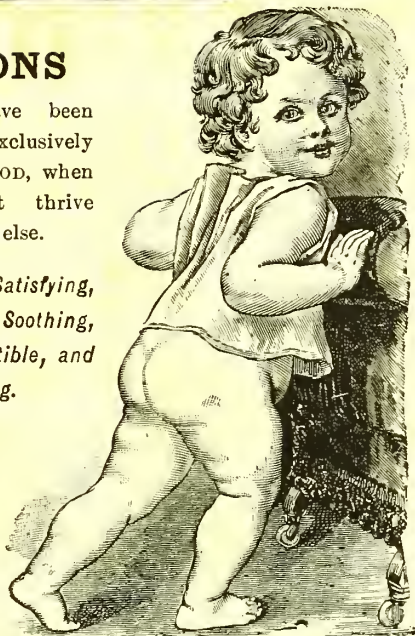
MILLIONS

of Children have been
brought up exclusively
upon RIDGE'S FOOD, when
they could not thrive
on anything else.

RIDGE'S FOOD is Satisfying,
Strengthening, Soothing,
Agreeable, Digestible, and
Nourishing.

MANUFACTORY—
Ridge's Royal
Food Mills,
London, N.

Telegraphic Address—
"RIDGE'S FOOD
LONDON."



Ridge's Food sets the babies on their legs, and makes
them push along.

TYRER'S SAUCES

AND
"BOROUGH" KETCHUP

GOOD
VALUE

THE GIANT 1d. BOTTLE OF SAUCE.

LARGEST IN THE TRADE.

In Half-Gross Boxes, at 6/6 per Gross.*

"BOROUGH" KETCHUP, WORCESTER, HARVEY, YORKSHIRE
OR READING SAUCE.

1d. Sample Bottles, dozen parcels	per gross 5/	extra quality 6/
1d. Giant Bottles, dozen parcels	" 5/6	" 6/6
1d. Giant Bottles, dozen parcels	" 6/	" 8/
1d. Giant Bottles, dozen parcels	" 6/6	" 8/
1d. Bottles (flat or round), reputed 1-pint	" 16/	" 24/
1d. Bottles (flat or round), reputed pint	" 26/	" 32/
1d. pint Imperial Round Stoppered Bottles	" 30/	" 36/
1-pint Imperial	" 50/	" 60/
12-gallon Casks (casks free)	each 20/	" 32/

ROYAL CAFÉ SAUCE.

In 8-oz. square-stoppered bottles, 48/ per gross.

A rich, fruity Sauce of fine flavour, and worth especial atten-
tion, as being the most saleable in the market.

Samples of any kind Sent Free of all Cost by

PETER TYRER,
The "Borough" Ketchup and Sauce Maker,
70 LONG LANE, BOROUGH, LONDON, S.E.

SCOTCH AGENCY: 113 WEST NILE STREET, GLASGOW.

Also Sold by W. & C. PANTIN, Upper Thames Street, LONDON, E.C.

BURGOYNE & CO., 16 Coleman Street, London, E.C.

JOS. TRAVERS & SONS, 119 Cannon Street, London, E.C.

NESTLE'S MILK FOOD FOR INFANTS.

ALSO WELL ADAPTED FOR CHILDREN AND INVALIDS.

Prepared at VEVEY, SWITZERLAND.



The only Perfect Supplement and Substitute for
Mother's Milk.

Easy of Preparation—requires merely the addition
of water.

UNIVERSALLY RECOMMENDED BY PHYSICIANS.

THE NEW DIETETIC EFFERVESCENT

KEF.

MILK DRINK.

KEF.

The most easily assimilated Food in Wasting Diseases.

PREPARED AND DELIVERED DAILY BY THE

SOLE MANUFACTURERS,

TRADE MARK: HEBE

SPRING & CO., 21 Blenheim Road, N.W.

TRADE MARK: HEBE

"RAMORNIE."

LIEBIG'S

Extract of Meat.

As supplied to the War Office.

1-lb. Jars	per lb.	6/2	..... per doz.	74/0	2-oz. Jars	per lb.	7/0	..... per doz.	10/6
1-lb. Jars	"	6/4	..... "	38/0	1-oz. Jars	"	7/8	..... "	5/9
4-oz. Jars	"	6/7	..... "	19/9	1-oz. Jars	"	8/0	..... "	8/0

Write for Detailed Price List to the Australian Meat Co., 9 and 11 Fenchurch Avenue E.C.

6 lbs. Carriage Free.

TO AERATED WATER MANUFACTURERS.

HAY'S

SOLUBLE + ESSENCES

ARE GUARANTEED TO BE THE FINEST IN THE MARKET.

HONOURABLE MENTION: INTERNATIONAL FOOD EXHIBITION, AGRICULTURAL HALL, LONDON, OCTOBER, 1880.

GOLD MEDAL: SOCIETY OF ARTS, PARIS, 1883.

HAY'S

HOP ALE ESSENCE.

"Supplies an excellent stomachic, appetising, and agreeable summer drink."

Brewers' Journal.

"For this Essence a brilliant future may be anticipated. It possesses characteristics very seldom to be met with."

Mineral Water Trade Review.

HAY'S HOP ALE.

"This is an excellent Non-Alcoholic beverage."

The Lancet.

"Evolves a delicious aroma of Hops."—*Medical Press.*



GINGER CHAMPAGNE.

(Made from Hay's Essence.)

"An excellent and most agreeable beverage."

The Lancet.

"Mr. Hay has caught the fine aroma of ginger with remarkable success. It is equally sparkling but more refreshing than its rival, the Royal French Beverage."

The Chemist and Druggist.

GINGER ALE.

(Made from Hay's Fortified Essence.)

"It pours out with as fine a head as any glass of ale, and possesses all the fine aromatic flavour of the pure ginger."

The Chemist and Druggist.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER.

A Pure Essence of the Finest Ginger, perfectly free from Capsicum. Highly adapted for the manufacture of Transparent Aerated Water, and for all Dietetic, Medicinal, and Pharmaceutical purposes. Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.

HAY'S COMPOUND FORTIFIED ESSENCE OF JAMAICA GINGER. FOR FIRST QUALITY GINGER ALE.

Specially prepared for the manufacture of the very Finest Ginger Ale made, is an addition of Vanilla, Lemon, and other flavours to the above. It imparts, with the exquisite Ginger Aroma of the above-mentioned Essence, a peculiarly fine fruity flavour, combined with the fullest amount of fragrance and pungency. Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s. Quantity required, five fluid ozs. to each gallon of Syrup, making 106 10-oz. bottles.

HAY'S GINGER ALE EXTRACT. FOR SECOND QUALITY GINGER ALE.

This Extract is strongly recommended for the manufacture of Ginger Ale, to which it imparts Pungency, Colouring, great Brilliance, and an unusually Fine Ginger Flavour and Aroma, and makes a thoroughly good article. Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s. Quantity required, three fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S GINGER ALE ESSENCE. Highly Concentrated. FOR THIRD QUALITY GINGER ALE.

This Essence, which is a complete Bouquet of Flavours in a highly concentrated state, makes a Ginger Ale possessing an amount of aroma, flavour and quality that will be sure to command a large sale, and that is unsurpassed by the so-called finest Belfast Ginger Ale. Trade Price, 9s. per lb.; 12 lbs. and upwards, 8s. 6d. Quantity required, half a fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles. This Essence will be found most valuable to the general trade.

HAY'S GINGER CHAMPAGNE ESSENCE.

For the manufacture of Ginger Champagne. This Essence is a combination of the finest flavours, and imparts with the Ginger a most exquisite aroma, making a most delicious and refreshing approximation to Champagne. Trade Price, 8s. per lb.; 12 lbs. and upwards, 7s. 6d. Quantity required, ten fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.

A magnificent Preparation, perfectly soluble, and makes the finest Lemonade obtainable. Trade Price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s. "Added in the proportion of one fluid oz. to each gallon of Syrup, the Soluble Essence imparts the most delicious flavour of the Lemon."—*The Chemists' Journal.*

HAY'S LEMON FLAVOUR. (Perfectly Soluble.)

Is prepared from the Finest Messina Lemons, and imparts to Lemonade all the Fine Aroma and Flavour of the fresh fruit. An Exceptionally Fine Essence. Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d. Quantity required, one and a half fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S HOP ALE ESSENCE.

This Essence is made from the Choicest Hops grown, and is unrivalled for its peculiarly fine Hop flavour and aroma. Hop Ale made from this Essence has the full flavour of the finest Hops, and is a really appetising Bitter Beer. Trade price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s. Quantity required, two fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

For Orange, Vanilla, and all other Essences send for Price List.

[2]

W. HAY, Manufacturing Chemist, Beverley Rd., HULL. ENGLAND.

The difference between preparations made from HAY'S ESSENCES and those made from the numerous SPURIOUS IMITATIONS of them bearing the name of SOLUBLE ESSENCES is most marked, and no manufacturer using the latter can compete with one using HAY'S PREPARATIONS, as is universally known.

Indentors, to prevent disappointment, should specify that the Goods are to be of HAY'S MANUFACTURE.

Telephone Number, 1852.

Telegraphic Address—CHEMICUS LONDON.

ADVERTISERS' AND BUYERS' REFERENCE LIST AND INDEX TO ADVERTISEMENTS.

ADVERTISEMENTS APPEARING IN THIS ISSUE OF "THE CHEMIST AND DRUGGIST."

NOTE.—The Folios shown in this Index are those at the FOOT of the Page, and NOT at the Top. This arrangement is necessary in order to meet the requirements of the Post Office.

Foot of page	
ADAMS, B.	Herb Beer Extracts 25
ALLEN & HANBURY'S	Effervescent Saline and Soluble Saccharin COVER
APOLLINARIS CO.	Apollinaris, COVER
ARMBRECHT, NELSON & CO.	Apollinaris Water, TEXT 810
ASSISTANTS WANTED AND WAITING SITUATIONS	Coloured Supplement
ATKINSON & BARKER	Infants' Preservative 4
AUSTRALIAN MEAT CO.	Extract of Meat 21
AYRTON & SAUNDERS	Specialties 54
RAILEY & SON	Trusses 32
BAKER, P. C.	Supplement
BARKER, W. & SON	Engravers, TEXT 810
BARNETT & FOSTER	Nozzle 52
BARBER & CO.	Marking Ink 60
BARRETT, R. H.	Boat's Mending 35
BAVER, F.	Sulfonal 6
BEECHAM, T.	Pills 5, 44
BENITO, REMUS & CO.	Corks 9
BIGGLESTON, E. R.	J. R. Hall's Wood Violet 31
BIRMINGHAM VINEGAR BREWERY CO.	20
BOWERS BROTHERS	Drugs 8
BOORD & SON	Drugs 8
BOTWRIGHT & GREY	10
BOWDLER & CO.	Bees wax 57
BRACHER & CO.	Mining Machinery 58
BRAND & CO.	Beef Tea, Soups, &c. 17
BRINNES & GOODMAN	Machinery 56
BRODIE, J.	Hair Dye 31
BROOKE, BOND & CO.	Tea 18
BROOKS, PELL & CO.	Collapsible Tubes, &c. 43
BURGOYNE, BURBIDGES & CO.	Wholesale Druggists 51
BURROUGHS, J.	Methylated Spirits 55
BURROUGHS, WELLCOME & CO.	Science in Diet 33
BUSINESSSES FOR DISPOSAL	Prescription Book 34
CADBURY BROS.	Cocoa Essence, COVER
CARTER, J. HARRISON	Machinery 56
CASBON, T.	Coloured Supplement
CAVE, JOHNSON & CO.	Spring Blossom Ceylon Tea 17
CHRISTIAN, J.	Boat's Mending Ink 58
CHRISTY & CO.	Drugs 41
CHURCHILL, J. & A.	Books 8
CLARK, W.	Veterinary 59
COPPERFIELD MINING CO.	Col. Supt. 58
CORNER, R.	Veterinary 58
CRESSWELL & CO. (LIM.)	Sponges 7
CRESSWELL BROS.	Sponges 11
CROUCH, F. B.	Damiana Waters 47
DAHL'S DYSPEPSIA CAKES	4
DALE, J. & SON	Machinery 57
DAVENPORT, J. T.	Chlorodyne 53
DELAURE, J.	Coloured Supplement
DE PASS & CO.	Petroleum 43
DENOVAL, J.	Medicinal Capsules 45
DU BOYER, MARIE	Perfumery 31
DUNN & CO.	Chemicals 38
DURRANT, GEORGE	Orange Wine 63
ELLIMAN, SONS & CO.	Embrocation, TEXT 810
ELSTE, A. & CO.	Loofahs 52
ELPS, J. & CO.	Homeopathic Medicines 39
EVANS, LESCHER & WEBB (London)	27, 41
EVANS, SONS & CO. (Liverpool)	Montreal 27, 41
EVANS, SONS & MASON (LIM.) (Montreal)	27, 41
EWEN & SONS	Lard, Perfumery, &c. 31
EXCHANGE COLUMN	11

Foot of page	
FACSIMILE APPLIANCE CO.	Printing 60
FLETCHER & CO.	Eucalyptus Oil ... TEXT 810
FOUGERA, E. & CO.	Druggists ... Col. Supt.
FRENCH HYGIENIC CO.	33
FRITZ & CO.	Salt Regal ... TEXT 810
FRY & SONS	Cocoa 17
GASKELL, DEACON & CO.	Chemicals 43
GENERAL ACCIDENT ASSURANCE	9
GIBSON, R. & SONS	Compressed Tablets, Jujubes, &c. 42
GODFREY & COORE	Inhalers 44
GOVERNMENT SANITARY CO.	50
GOODALL, BACKHOUSE & CO.	Household Specialties 15
GOWER, J.	Coloured Supplement
GRIFFITH & CO.	Sulfonal 37
GREEN, S.	Ointment 45
GREENSILL, T. S. & SON	Perfumery 30
GREGORY, W.	Veterinary 50
GRINDLEY & CO.	Petroleum Jelly 13
HALL'S WOOD VIOLET PERFUME (Successor, E. R. Biggleston)	31
HARDY PATENT PICK CO.	56
HARGREAVES, M. K.	Books 8
HARKER, STAGG & MORGAN	Export Druggists 33
HASSALL & CO.	Phospho Ctric Acid 26
HAY, W.	Soluble Essences 12
HAYDON'S CHEMISTS DEFENCE AGENCY	10
HEARN, A. E. & CO.	Bottles 42
HEARON, SQUIRE & FRANCIS	Preparations 31
HESELTINE, WM. & SON	Premier Tea of India and Ceylon 16
HICKS, J. & J.	Measures 40
HOBBS INFUSER CO. (LIMITED)	9
HORN & SON	Patents and Trade Marks 63
HORNBY, A.	Kamphoralk 50
HOUTDE, A. & CO.	Pastils 39
HYGIENIC PAPER CO.	60
IDRIS & CO.	Pure Crushed Linseed 64
INGRAM & SON	Emmas 61
ISAACS & CO.	Bottles 41
JONES & CO.	Methylated Spirits 58
KEARLEY & TONGE	Mitre Tea 19
KEENE & ASHWELL	Homeopathic Medicines 61
KEMP, W. H.	Whooptaine 63
KERFOOT, T.	Pearl Cachous 47
KERNICK & SONS	Line Juice 61
KINMOND & CO.	Aerated Waters 28
KUHN, B.	Painful Pinkies (Salts) 39
LEATH & ROSS	Homeopathic Pharmacies 3
LEYMORE, AUG. & CO.	Precipitated Chalk 63
LOISETTE, PROF.	Coloured Supplement
LONDON HOMEOPATHIC HOSPITAL AND MEDICAL SCHOOL	8
LORIMER & CO.	Specialties 29
LYNCH & CO.	Dispensing Bottles, COVER
MACK, H.	Pasta Mack 30
MAW, S. SON & THOMPSON	Springes, 32; Caution Notice and Specialties 12, 13
MAWSON, SWAN & CO.	Filters 40
MAY & BAKER	Mercerize, &c. COVER
MAY, ROBERTS & CO.	Loofahs 33
MCAUGHTAN, F. J.	Agency, Coloured Supplement
MELIN, C.	Machinery 57
MERCS, L.	Alumina 43
MOHNT (C) SOAP CO.	63
MUMFORD, G. S.	Starch Powder, TEXT 810
MUNDAY, J.	Injection Day 45

Foot of page	
NASCIO, AVELINE & CO.	Essential Oils 33
NATIONAL CHEMICAL CO.	Chloride of Lime 52
NESTLE, H.	Food for Infants 21
ORRIDGE & CO.	Transfer Agents, Coloured Sup.
OSCAR ANDRE, E. & CO.	Drugs 45
OSCAR SUTTON & CO.	OS Tooth Block 57
PATERSON'S MANUFACTURING CO. (LIM.)	Cold-Liver Oil with Malt Extract 41
PEARS' SOAP	35
PEARSE & WHEATLEY	Tea 18
PHILLIPS, GEO., & CO.	Pure Spirits of Wine 58
POLLARD, A. W.	Dispensing Labels 9
QUIBELL	Sheep Dip 3
QUELCH, HENRY C.	Face Powder 63
QUILLIAM & CO.	Belladonna 63
RAIMES, CLARKE & CO.	Specialties 38
RAIT, GEO. L., F.C.S.	Analytical 63
RAUFAEL & CO.	Speculacres 10
RATTEL, S. & CO.	Magnifying 47
RICHFORD, E. M.	Indiarubber Type 63
RIDGE, DR. FOOD	21
RIVERHEAD OIL MILLS CO.	Ground Yul Oil 6
ROBERTS & CO.	Specialties 36
ROBINSON, B.	Wines 32
R' THERMEL, P.	Vinegar Apparatus 57
ROWLAND, L.	Chloride of Gold 63
SANITARY WOOD WOOL CO.	Household Specialties 15
SANITAS, THE, CO. (LIM.)	TEXT 810
SAINSBURY, S.	Lavender Water 63
SCHACHT & CO.	Mineral Waters 28
SCHUTZE & CO.	Sundries 32
SELLEIS, J.	Zincine Pur. 63
SHIPKOFF & CO.	Olto of Rose 31
SHIRLEY, A. W.	Menthol 61
SILICATED CARBON FILTER CO.	Filters 9
SILVERLOCK, H.	Printing 8
SLACK & CO.	TEXT 810
SMITH, W. F.	Pills 41
SOL THALL, BROS. & BARCLAY	Percolator 37
SPRING & CO.	Food 21
STERN, G. & G.	Pumpline 33
STOCKEL, G.	Honey Drop for the Skin 63
STUTON, F. CO. Norfolk Veterinary Remedies	39
SYMES & CO.	Drugs 35
"THE CHEMIST AND DRUGGIST OF 'ESTRALASIA"	8
THOMPSON, M. F.	Pastils 47
TOOGOOD, W.	Sundries 55
TREATH, R. C.	Perfumes 31
TULY, J.	Coloured Supplement
TYLER, P.	Sauces and Boro' Ketchup 21
UNITED KINGDOM TEA COMPANY	17
VACCINE ASSOCIATION	Pure Lymph 47
VAN ABBOTT & SON	Gluten Bread 37
VAN HOUTEN	Monograms 63
VIKING FOOD CO.	TEXT 810
VOGT, G.	Wholesale Druggists 50
WARNER, W. B. & CO.	Pills 25
WHITE, A. & SONS	Drugs and Chemicals 42
WILLOW'S, FRANCIS & BUTLER	Drugs 44
WILKINSON & SONS	Hops 50
WILSON, S.	Fly Papers 50
WRIGHT & CO.	Books 8
WYLEYS & CO.	Wholesale Druggists, &c. 25
	Gelatin Oval Coated Pills 35
ZIMMERMANN, A. & M.	Pure Chemicals 45

CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear above are published in one of the other issues of this month.

ACETIC ACID

Dunn and Co.
Morris and Callard (Salts)

AERATED AND MINERALS

Adams, B.
Apollinaris (Hunyadi, Friedrichshall, and Apollinaris)
Barnett and Foster
Chemists' Aerated Waters Association
Durrant, Geo., & Co.
Ellis (Ranthin)
Evans, Sons and Co.
Hay, W.
Hassall and Co. (Citric Acid)
Phospho
Hunyadi Janos
Jaris and Co.
Ngram and Royle
Jesbury and Brown
Johannis Mineral Water Co. (Lim.)
Kinmond & Co.
Latt and Co. (Bourne)
Taylor, T. and F. J.
Woodhall Spa
[See GINGER ALE]

DITTO PLANT

[See SYRPHONS and EGGS 221.]
Barnett and Foster

Bratby and Hinchliffe
Bush, W. J., and Co. (Foam)
Producer, &c.)
Favarger, H.
Gneret Frères
Tyler, Hayward, and Co.

AGENCIES ABROAD

Appleby and Halse
African Drug Co.
Campbell, N. S., and Co.
Cocking (Japan)
Evans, Sons and Mason (Lim.) (Canada)
Felton (Melbourne)
Fougere (New York)
Kempthorne (New Zealand)
Macnaughton, F. J.
Peake, Allen and Co.
Roberts (Paris, &c.)
Rocke (Melbourne)
Sharland & Co. (Auckland N.Z.)
Soul, W. H., and Co.

ALKALOIDS

Howards and Sons (Cinchona)
Smith, T. and H.

ALMILAJ

Merca, L.

ANALYSIS

Rait, G. L., F.C.S.

AMMONIA

May and Baker
White, A., and Sons

APPARATUS

Bracher & Co. (Automatic distilling)
Brinjes and Goodwin
Clarke, S. (Food Warmer)
May, Roberts (Water-bath)
Orme (Scientific)
Perken, Son and Rayment (Scientific)
Rothermel, Paul (Vinegar)

BANDAGES

Bailey, W. H., and Son
Bole Hall Mill Co.
Elste & Co.
Robinson and Sons

BATH GLOVES

Maw, Son and Thompson
Pattison, G.
Solpo, I. Bros.

BOXES

Austin and Co. (Cardboard)
Irvin and Sellers
Metz, Paul (Willow)
Noakes, B., & Co.
Self-Opening Tin Box Co.
South Wales Canister Co.

BICARB. SODA

Gastell, Deacon and Co.
Howards & Sons
May and Baker

BEESWAX & HONEY BOTTLES

Bowdler and Co.

BISMUTH. PREP.

Burroughs, Wellcome and Co.
Hearon, Squire and Francis
Hewlett and Sons
Howards and Sons
May and Baker
Syms and Co.
White, Alfred and Sons

BLOOD MIXTURE

Beedzler, J., and Co.
Lincoln and Midland Counties
Drug Co.

BOOKS

Baily, J.
Bell, G., and Sons
Churchill, J., and A.
Dobell, Dr.
James, Dr. Prosser
Keene and Ashwell
Kimpton R.
Levis, H. K.
Loisette, Professor
Longmans, Green and Co.
Renshaw, H.
Robinson, G. H.
Wells, G.
Wright, J., and Co.

BOTANIC BEEB

Newball and Mason

BUTTER COLR, &c.

Barrett, R. H.
Barnett and Foster
Bratby and Hinchliffe
Bredt's (Lim.)
Brooks, Peel (Perfumer)
Dunlop, Mitchell and Co. (Tubes)
Hearn, E. A., and Co.
Issacs and Co.
Kilner Bros.
Larg, J., and Co.
Maw, Son and Thompson
Pots
Tooze

BRUSHES

Bailey, C. J., and Co. (Toilet India Rubber)
Dr. Kase and Co.

BUTTER COLR, &c.

Bush, W., and Son (Mari-goldins)
Johnson and Jorgensen
Othfield, Pattison and Co.
Tomkinson and Hayward

CAMPHOR

Howards and Sons
Keene and Ashwell (Homeo)
May and Baker (pathic)
Maw, Son and Thompson

CARMINE

Bush, W. J., and Co.
Sellers

CAPSULES

Donohal, J. (Medicinal)
Duncan, Flockhart and Co.
(Cascara Sagrada)
Durrant, T., and Co.
Evans, Sons and Co.
Hooper, B., and Co.
Maw, Son and Thompson

DITTO (MITALLO)

Betts and Co.
Melin, C. (Machine)

CASC. SAGRADA

Duncan, Flockhart and Co.
Squire and Sons
Evans, Sons and Co.

CATALOGUE

Evans, Sons and Co. (Price Current)
Maw, Son and Thompson (Price Current)
Newbery, F., and Sons
Sanger and Son
Thompson, Millard and Co.

CHEMICALS

Bennett and Jenner
Bush, W., Son and Co.
Dunn and Co.
Fletcher, Fletcher & Stevenson
Gaskell, Deacon and Co. (Bicarbonate of Soda)
Greiff, and Co.
Hill, A. S., and Son
Howards and Sons (Pharm.)
Kuhn, B.
Levermore, Aug., and Co.
May and Baker
Morris, Collard, and Co.
Oscar Andree and Co.
Pronk, Davis and Co.
Stern, G. and G. (Pumiline)
Sumner, R., and Co.
Smith, T. and H., and Co.
Tytkie and King
White, A., and Sons
Zimmermann, A. and M.

CHALK PRECIP.

Dunn and Co.
Levermore, Aug., and Co.
White, A., and Sons

CHEST PROTECTRS

Maw, Son and Thompson
Wood, V.

CHL. OF POTASH

(Compressed Tablets)
Burroughs, Wellcome and Co.
Hooper, B., and Co.

CHLOR. OF GOLD

Oscar Andree and Co.
Rowland, L.

CHLORDE OF LIME

Government Sanitary Co.
National Chemical Co.
New Carbolite Sanitary Co., Ltd.

CHLORODYNE

Blyton-Bage and Co. (Twemlow's)
Burroughs, Wellcome and Co.
(Davenport's Brown's)
Freeman, R.
Thomas, Wakeham and Co.
(Dr. Henry's)
Twemlow, A. J.

CHLOROFORM, &c.

Duncan, Flockhart
Macfarlan, J. F.
Smith, T. and H.
Zimmermann

CIGARETTES

Evans, Sons and Co.
French Hygienic Co. (Coca)

CITRIC ACID

Hassalla (Phospho)
Nascio, Aveline and Co.

COCAINE HYDRO.

Houle, A.
Howards and Sons
McKesson and Robbins

COCA WINE

Armbricht, Nelson and Co.
Evans, Sons and Co.
French Hygienic Co. (Cigarettes and Tobacco)

COCOA & CHOCOLTE

(Adhary)
De Jong's Pure Soluble Cocoa
Fry (Malted)
Van Houten's Cocoa

COD-LIVER OIL

Allen and Hanbury
Breckie and Howland
Burgoyne (Fenteleina)
Burroughs, Wellcome
Evans, Sons and Co.
Hill, A. S., and Son
Lorimer and Co.
Smith, T. J.
Woolley, Sons and Co.
Wright, Layman and Umney

COFFEE

Wilmington Co. (Coffee-Est.)

CLIPSIBLE TUBES

Betts and Co.
Brooks, H., Peel and Co.

COMPRESSD MDCNS

Allen and Hanbury
Burroughs, Wellcome and Co.
Hooper, B., and Co.

CONFECTIONERY

Bage, Blyton and Co.
Gibson, R., and Sons
Kerfoot, T.
Warrick Brothers

COMP. ESSENCE

Potter and Clarke

CORKS

Benito, Remus and Co.
Bishop and Warden (Socks)

CORN CURES

Maw, Son and Thompson
Robinson, B.
Solport Bros.
Thompson, M. F.

CONCENTD. LIQS.

Evans, Sons and Co.
Fletcher, Fletcher & Stevenson
Kcith, B., and Co.
Thompson, H. A., and Son

COTTON WOOL

Haynes G., & Co. (Absorbent)
Maw, Son and Thompson
Robinson and Sons (Absorbent)
Sanger, J., and Sons
Sembury and Johnson

DENTIFRICES

Du Boyer, Marie
Jewsbury and Brown
Newbery and Sons
Sinton, O., and Co.
Thompson and Capper
Woods, W. (Arecia Nut)

DISINFECTANTS

Government Sanitary Co.
Hamilton and Co.
Hornby, A.
Wilson, S.
National Chemical Co.
New Carbolite Sanitary Co., Ltd.
Sanitas Co.

DISINTEGRATORS

Carter, J. H.
Hardy Patent Pick Co., Lim.

DOG MEDICINES

Spratts (Patent)

DRUGGISTS' SUN.

Ayrton and Saunders
Bishop & Warden (Cork Socks)
Evans, Lescher and Webb
(Hawley's Counter Admitts)
Evans, Sons, and Co. (Savars)
Hill, A. S., and Son
Idris and Co.
Lynch and Co.
May, Roberts and Co.
Newbery, F., and Sons
Pattinson, G.
Sanger and Sons
Schnitz and Co.
Thompson, Millard and Co.
Toozood, W.
Wood, Vincent

DRUMS, CANS, &c.

Noakes and Co.

EAU DE COLOGNE

Farina, J. M.

EFFERVESCENT

Allen and Hanbury's (Saline)
Bishop, A., and Sons
Fritz and Co.

ELECTRIC APPAR.

Colthurst & Harding (Electric Light Oil)
Darton, F., and Co.
Orme and Co.

EMBROCATION

Clar, W.
Elliman, Sons and Co.

ENEMAS

Ingram and Sod
Lynch and Co.
Maw, Son and Thompson
Sanger and Son

ENGRAVERS

Schutze, F., and Co.

ESSENCES, FRUIT**AND SOLUBLE**

Brady and Hinchliffe
Burgoyne, Burdidge and Co.
Bush, W. J., and Co.
Bush, W., Son and Co.
Cummock, J.
Hay, W.

ESSENTIAL OILS

Bush, W., Son and Co.
Bush, W. J. (Lemons, &c.)
Cockling (Japan Peppermint)
Cummock, J.
Evans, Sons and Co.
May and Baker
Nascio, Aveline and Co.
Rooke, Tomositt (Eucalyptus)
Stallman and Fulton
Stevenson and Howell
Sykes and Co.
Todd, A. M.
Vogt, G.
Warrick Brothers
Wright, Layman and Umney

ETHER

Duncan, Flockhart and Co.
(Chloric)

Howards and Son
May and Baker
Robbins

White, A., and Sons

EUCALINUM

Rooke, Tomositt and Co. (Antiseptic Poultice and Vinegar)

EUCALYPTUS OIL

Downie, B. I. P. Co.
Fletcher, Fletcher & Stevenson
EXTRACT, MEAT
Australian Meat Co.
Brand and Co.
Liebig Co.
Viking Food and Essence Co.

EXTRACTS, FLUID

Allen and Hanbury
Barber, G., and Co.
Burgoyne, Burdidge
Evans, Sons & Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire and Francis
Oldfield, Pattison and Co.

FEEDING BOTTS.

Hearn, E. A., and Co.
Kinner Bros.
Max, Son and Thompson
May Roberts and Co.
Pocock, Keevil and Co.
Thompson, Millard
Toozood, W.

FILTERING

Doulton and Co.
Mawson Swan, and Weddell
Black & Brownlow
Ellicott's Carb. Filtr. Co.

FLY PAPERS

Ford, Shapland and Co.

FOAM PRODUCERS

Bush, W. J. and Co.

FOOD WARMERS

Clarke, S.

FOOD (Infants & Invalids)

Allen and Hanbury
Benger's Pancreatized
Brand and Co.
Burroughs, Wellcome (Peptonizing)

Dahl's Dispepsia Cakes
Goodall, Backhouse and Co.
Hearon, Squire (Malted)
Lazenby, E., and Son
Leitch, C.

Maclean and Son
Mottershead and Co. (Benger's Food)
Nestle, H.

Ridge's, Dr., Food
Spring and Co. (Ket.)
Van Abbott (Diabetic)

FORMULE

Brooks, T.

GINGER ALE

Adams, B.
Kinnaird and Co.
Hay, V. (Essence)
Mills, R. M.

GLYCERINE

Fink
Martindale, W. (Nitro-Glycerine Tablets)
Maw, Son and Thompson
Price's Candle Co.

GRANULAR PREP.

Bishop, A., and Sons
Burroughs, Wellcome and Co.
Bush, W., and Co.
Evans, Sons and Co.
Hearon, Squire and Francis
Hill, A. S., and Son
Wright, Layman and Umney

GUMS

Fink (Arabi), &c.

GUTTAPEPERCHA

Duncan, Flockhart

HAIR PREP.

Bates, F. W. (Frizzette)
Brodie, J. H. (Imperial Hair Dye)
Capper, W. B. (Crindons)
Cheesebrough Mfg. Co.
French Hygienic Co.

HERB BEER EXTS.

Adams, B.
Newball and Mason
Oldfield, Pattison and Co.
Potter and Clarke

HERBALISTS

Adams, B.
Newball & Mason (Ext. of Herbs)
Potter and Clarke
Wilkinson, A., and Sons (Compressed Hops)

HOMOEOPATHIC

Epps and Co.
Keene and Ashwell
Leath and Rose
Thompson and Capper

HOPS

Wilkinson, A., and Sons (Compressed)

HOP ALE ESSENCE

Hay, W.

HOSPITALS

London Homeopathic

HYPHOSPHITES

Duncan, Flockhart and Co.
Dunn and Co.
Fellows
Fletcher, Fletcher & Stevenson
Symes & Co.

Swann, H. H. (Dr. Churchill's)
Tytkie and King
Yeatman, F. J.

INK (See MARKING.)

Bewley and Draper
Duncan, Flockhart

INHALERS

Godfrey and Cooke
Maw, Son and Thompson
Toozood, W.

INSECTICIDES

Keating, T.
Greiff, R. W., and Co.
Sanford
Steiner and Co.

KETCHUP

Tyrer, P.

LARD

Ewen, J.

LAMPS, LIGHTS, &c.

Clarke, Samuel ("Fairy")

LEECHES

Fitch and Nottingham
Potter and Clarke

LIME JUICE

Idris and Co.
Kernick and Son

LINSEED

Idris and Co.
Mumford, G. S.

LINT

Liverpool Lint Co.
Maw, Son and Thompson
Robinson and Sons
Seahury and Johnson

LOZENGES

Allen and Hanbury
Blyton, Bage & Co. (Medicated)
Evans, Sons and Co.
Gibson, R., and Sons (Manfra.)
Hill and Son
Houde, A. (Hydrochlorate of Cocaine)

Kerfoot, T. T.
Lorimer and Co.
Martindale, W. (Nitro-Glycerine Tablets)
Warrick Brothers (Heliotrope Pastilles)

LOOFABS

Elste, A., & Co. (Bath Gloves, Belts, and Socks)
May, Roberts and Co.
Sanger and Sons

MACHINERY

Birmingham Machinists' Co. (Printing)
Brinjes and Goodwin
Carter, J. H.
Copperfield Mining and Smelting Co.

Dale, J., and Son
Hardy Patent Pick Co., Lim.
Melin, C. (Caesuling)
Sherwin, G. E.
Werner and Pfleiderer

MAGNESIA

Banner, E. R. (Citrates)
Bishop, A., and Sons
Bush, Son and Co.
Dinnerford
Henry, T. and W. (Calcined)
Hill and Sons, A. S.
Lorimer and Co. (Citrates)
Oscar Andree and Co.

MALT EXT., ETC.

Allen and Hanbury
Burroughs, Wellcome and Co.
(Malt Extract "Kenler")
Hearon, Squire and Francis
Lorimer and Co.
Paterson's Chemical Manufacturing Co.

MENTHOL

A. Menthol Depot, A. W.
Shirley, Proprietor
Castle Menthol Co.
Cocking and Co.
Hockin Wilson and Co.
Maw, Son and Thompson
Miskido Menthol Co.
Shirley, A. W.
Todd, A. M. (Crystal Oil of Peppermint)

MARKING INKS

Barber, G., and Co. (Crimson)
Christie, J.
Hickisson, J.

MEASURES

Hicks, J. J.
Dunlop, Mitchell and Co.

MEDICINE CHESTS

Day, Son and Hewitt (Veterin.)
Day and Sons

MERCURIALS

Bush, W., and Co.
Howards and Sons
May and Baker

METHYLATED**SPIRITS**

Burroughs, J.
Harvey, J. W., and Co.
Jones and Co.
Macnair, J. & D.
Phillips, G., and Co.

METHYLENE

Robbins, J., and Co.

MICROSCOPES

Darton, F., and Co.
Perken, Son and Rayman

MIXING MCHNRY

Bracher and Co.
Brinjes and Goodwin
Burroughs, Wellcome and Co.
Carter, J. H.
Sherwin, G. E.
Werner and Pfleiderer

MORPHIA

Macfarlan, J. F., and Co.
Smith, T. and H.

MUSTARD

Banner, L. R. (Oil)
Johnson, J. H. and S. (Ess. Oil)

NERPENTHE

Ferris and Co.

NIGHT LIGHTS, &c.

Clarke, S.

OILS, PAINTS, &c.

Colthurst and Harding
Gregory, W. (Devonshire Oils)
Pronk, Davis and Co.
River Head Oil Mills Co.
Vogeler, The Charles A., Co. (St. Jacob's Oil)

OINTMENT BASES

Cheesebrough (Vaseline)
De Pass, E. A., & Co. (Petrolina)
Grindley (Petroleum Jelly)

OPTICIANS

Darton, F., and Co.
Perken, Son and Rayman
Raphael, J., and Co.

PAPAIN FINKLER

Kuhn, B.

PARALDEHYDE

Zimmermann, A. and M.

PATENT AGENTS

Horn and Son
Pritchard, A. G.

PATENT MEDCNS.

Armbricht, Nelson & Co. (Coca Wine)
Atkinson (Infant Preserv)
Beecham (Pills)
Beckler, J., and Co.
Crouch, F. B. (Wafers)
Dahl's Dispepsia Cakes
Edwards and Son
Evans, Lescher (Hawley's Counter Adjuncts, Coated Pills, &c.)
Fennell's (Powders)
Holloway (Pills and Oint.)
Kemp, W. H. (Whooopline)
Lalor (Phosphodyne, &c.)
Lincoln (Clarke's Mix.)
Lynch and Co.
May, Roberts and Co.
Merck, L.
Munday, J. (Injection Day)
Newbery and Sons
Ratti and Co. (Meuphrosine)
Richier, Dr. (Pain Expeller)
Roberts Foreign
Singleton's Eye Ointment
Thompson Millard and Co.
Vogeler, The Charles A., C

PERFUMERY,**FANCY SOAPS.**

Atkinson, J. and E.
Atkinson, J. and Co.
Biggleston, E. R.
Burroughs, Wellcome and Co.
Cheesebrough Manufacturing Co.
Crown Perfumery Co.
Du Boyer, Marie
Durrant, Geo.
Ewen (Soaps)
Hilly Wood Violet
Greensill, T. S., and Son
(Mona Bouquet)
Mack, H.
Maw, Son and Thompson
Mount Carmel Soap Co.
Newbery and Son
Pearl Soap (Dirty Boy)
Royal Perfumery Co.
Sainsbury, S. (Lav. Water)
Stern, G. and G. (Pumiline)
Treat, R. C.
Warrick Brothers
West, T. (Okell's Mince)
Woolley, Sons and Co. Powder

PEPPERMINT

Todd, A. M. (Crystal White)
Oil of Peppermint

PEPSINE, &c.

Burroughs, Wellcome and Co.
Fletcher, Fletcher & Stevenson
Greiff, R. W., and Co.
Newbery (Inglavin)
Warner and Co. (Inglavin)
Zimmermann

PEROX. OF HYDR.

Dunn and Co.
Robbins and Co.

PHARM. PREPS.

PHOTOGRAPHIC

Botwright and Grey
Howards and Son (Chemicals)
Perken, Son and Rayment
Marion and Co.
May and Baker
Oscar Andre and Co
White, Alfred and Sons

PLASTERS

Burroughs, Wellcome and Co.
Mather, W.
Maw, Son and Thompson
St. Dalmas, A. De
Seabury and Johnson
Smith, W. F.
Thompson, M. F.

PILLS (Coated, &c.)

Allen and Hanbury's
Beecham, Thomas
Evans, Sons and Co.
Hearon, Squire and Francis
Hill, A. S., and Sons
Hooper, H.
Lorimer and Co.
McKesson and Robbins Ovoid-
capsuled
Newbery and Sons
Sanger, J. and Sons
Smith, W. F.
Southall, Bros. and Barclay
Swann, H. H.
Warner, W. R. (Coated)
Wyleys and Co.

PILL MACHINES

Maw, Son and Thompson
Pindar, J. W.
Robertson, J., and Co. (Coating)
Toogood, W. (Coater)

PODOPHYLLIN, &c

Keith, B. and Co.
Smith, T. and H.

PORCELAIN QDS.

Poths, H., and Co.
Toogood (E.c. Pots, regist.)

POLISHING

Baumgartner (La Brillantine)
Bradley, Bourdas (Albatum)
Clark, W.
Oakley, John, and Sons

PRINTING

Birmingham Machinists' Co.
Bowers Bros.
Facsimile Apparatus Co.
Ford, Shapland and Co.
Silverlock, H.
Townsend, J. (Exeter)

QUININE SALTS

Howards and Son
Kuhn, B.
Oscar Andre and Co.
Zimmerman

PUMILINE

Burroughs, Wellcome and Co.
Mack, Joseph
Stern, G. and G.

RENNET

Benger's (Essence of)
Duncan, Flockhart and Co.
Johnsen and Jørgensen
Oldfield, Pattinson and Co.

SACCHARIN

Allen and Hanbury's
Burroughs, Wellcome and Co.

SALICINE

Macfarlan and Co.
Smith, T. and H., and Co.

SALOL

Kuhn, B.

SAUCES, PICKLES

Birmingham Vinegar Brewery
Co.
Goodall, Backhouse and Co.
Lazenby (Harvey's)
Tyrer, P.

SEA SALT

The Maldon Crystal Salt Co.

SCHOOLS OF**PHARMACY,****HOSPITALS, &c.**

Edinburgh Classes
Liverpool School
London Homoeopathic and
Medical School
Manchester College
South London School of
Pharmacy, Lim.
The School of Pharmacy
Tully, J.
Westminster College

SEALING WAX

Fisher, Clark and Co.
Waterston, G., and Sons

SELTZOGENES

Idris and Co.
May, Roberts and Co.

SHAVING

Dukas and Co. (Brushes)

SOAP (SOFT, &c.)

Maw, S., Son and Thompson
Pears' Soap
Stern, G. and G. (Pumiline
Toilet and Sanitary)

SHEEP DIP

Bigg, T.
Cooper, W., and Nephews
Grindley and Co.
Tomlinson and Hayward

SMELLING SALTS

Shirley, A. W.

SHOP FITTERS

Bowling and Govier
Bygrave, J. and W.
Corran, J. R.
Howlett, S.
Natali, E. (Show Cases)
Yates, W. S.

SPECTACLES

Botwright and Grey
Darton, F., and Co.
Raphael and Co.

SPIRIT

Boord and Son
Burrough (Pure & Methyl.)
Harvey, J. W., and Co.
Jones and Mason (Methyl.)
Macneir, J. & D.
Phillips and Co.
Smith, Stephen and Co.

SPONGE

Greenswell Bros.
Greenswell, R. and Co (Lim.)
Evans, Sons and Co.
Maw, Son & Thompson (Bage)
Peterson, M., and Co.

STAMPS (RUBBER)

Pollard, A. W.
Richford, E. M.
Van Houten and Co.

STOPPERS

Austin and Co. (Sprinklers)
Barnett & Foster (The Eclipse)
Brooks, Peet (Sprinklers)

SURGICAL

Ayrton and Saunders
Bailey, W. H., and Son
Haywood, J. H.
Ingram and Son
Liverpool Patent Lint Co.
Maw, Son and Thompson
Robinson and Sons
Thompson, Millard and Co.
Woolley, Sons and Co.
Wood, Vincent

STARCH

Critchley (Gloss)

STROPHANTHUS

Burroughs, Wellcome and Co.

SUGAR

Gibson, R., and Sons

SYPHONS

Barnett and Foster
Idris and Co.
Kilner Bros.

SYRINGES

Maw, Son & Thompson, S.
Sumner, R. and Co.

SYRUPS

Churchill, Dr.
Fletcher, Fletcher (Liquors)
Idris and Co.
Swann, H. H.

TEA

Brooke, Bond and Co.
Cave, Johnson and Co.
Gt. Tower St. Tea Co.
Heseldine, Wm., and Son
Hobb's Infuser Co.
Kearley and Tonge
Pearse and Wheatley
Walker and Dalrymple

THERMOMETERS

Darton, F., and Co.
Maw, Son and Thompson
Perken, Son and Rayment
Raphael and Co.

TIN CANISTERS

Noakes, B., and Co.
South Wales Canister Co.

TOILET PAPER

Downing, J. S.
Hygienic Paper Co.

TOOTH PASTE

Jewsbury and Brown
Maw, Son and Thompson
Sutton, O., and Co. (Black)
Woods, M. (Arecia)

TRADE MARKS

Horn and Son

TRUSSES

Bailey, W. H., and Son
Haywood, J. H.
Lynch and Co.
Maw, Son and Thompson

TYPE-WRITING

Facsimile Apparatus Co.
Pollard, A. W.
The Universal "Simplex"
Type-Writer

URETHANE

Howards, Sons and Co.

VALUERS AND**TRANSFER AGENTS**

Baker, P. C.
Orridge and Co
Tomlinson and Sons

VARNISH

Clark, W.
Colthurst and Harding

VACCINE LYMPH

Association for the Supply
of the Pure

VASELINE

Chesebrough Manufacturing Co.

VERMIN KILLERS

Battle, J. R.
Sanford and Son
Steiner and Co.

VETERINARY

Bigg, T.
Clark, W.
Corner, R. (Devonshire)
Day, Son and Hewitt
Gregory, A. W. (Vesico Sudorific)
Gregory, W. (Devonshire Oils)
James, W. H. (Blister)
Roratta (Dose)
Vogeler, The Charles A.
Tomlinson and Hayward

VINEGAR

Birmingham Vinegar Brewery

Co.
Rothermel (Making)

WAFERS

Crouch, F. B. (Damiana)

WHOLESALE & EXPT**DRUGGISTS**

Allen and Hanbury's
Barron, Squire and Co.
Burgoyne, Barbidge
Bush, W., Son and Co.
Evans, Lecher and Webb
Evans, Sons and Co.
Evans, Sons and Mason (Lim.)
Ferris and Co.
Harker, Stagg and Morgan
Hearon, Squire and Francis
Hewlett and So
Lorimer and Co.
Hill, A. S., and Son
Oldfield, Pattison and Co.
Potter & Clarke's American, &c.
Southall Bros. and Barclay
Summer, R., and Co.
Sykes and Co.
Thompson, Millard and Co.
Thompson, H. A., and Son
Willows, Francis and Butler
Woolley, Jas., Sons and Co.
Wright, Layman and Umey
Wyleys and Co.

WINDOW TABLETS

Corsan, J. R. (Engraved)

WINES AND SPTS

Boord and Son
Coleman and Co.
Durrant, G. (Orange)
Goodall, Backhouse and Co.
Idris & Co. ((Quinine Wine)
Ingram and Royle
Phillips, G., and Co. (Pure
Spirits of Wine)
Smith, Stephen & Co. (S.V.R.)
Robinson, B. (Orange)

WOOD WOOL

Sanitary Wood Wool Co.

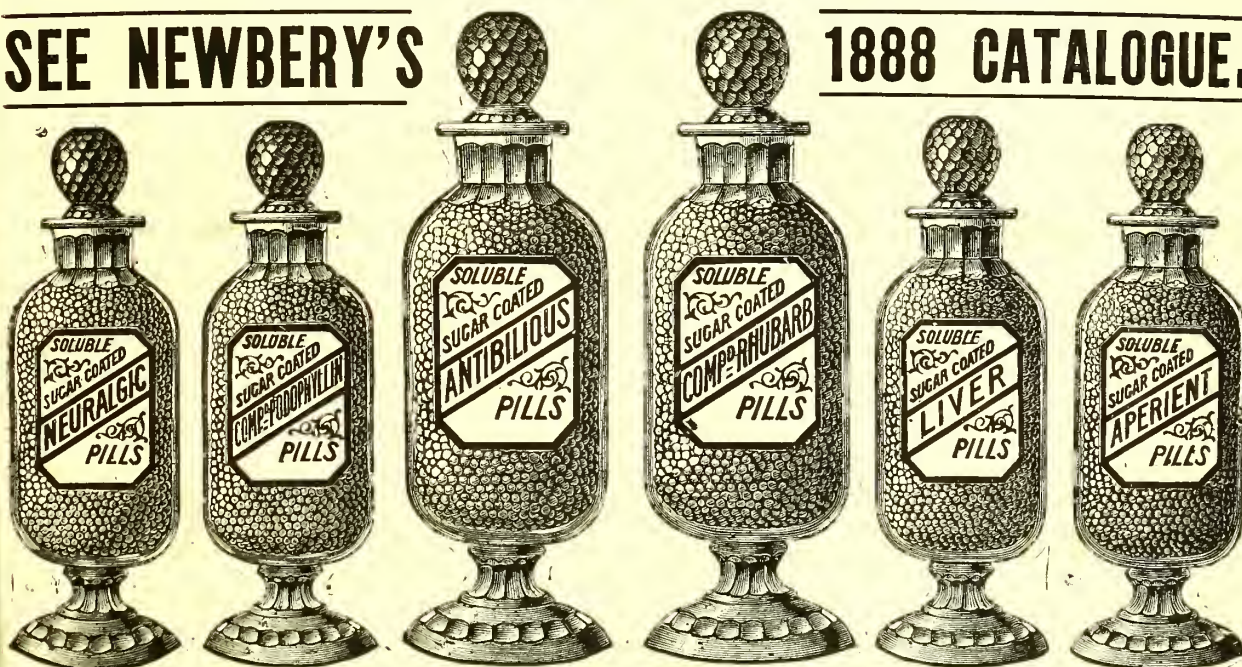
NEWBERY'S OVAL PEDESTAL PILL VASES

REGISTERED PATTERNS.

PRICES MATERIALLY REDUCED.

SEE NEWBERY'S

1888 CATALOGUE.



Label Design Registered under Trade Marks Act.

Vases supplied with Pills only.

BY ROYAL LETTERS PATENT.

HASSALL & CO.'S PHOSPHO-CITRIC ACID

Is the Best, Purest, and most Economical Agent for Acidulating all Saccharine Beverages.

Price only **10d.** per lb., in 9 and 18 gallon casks ; **1s.** per lb. in small quantities.

One Ounce Measure is equal to One Ounce of Citric. It produces a higher class Beverage, and shows an economy of between £6 and £7 per cwt.

We do not ask for an order, we merely solicit the favour of a trial.

3-oz. Sample for Postage (3 stamps), or 14 lbs. on approbation.

PAMPHLET GRATIS.

UNSOLICITED TESTIMONIALS.

We are pleased to be able to testify that your Phospho-Citric Acid is satisfactory under the most severe trials. We have placed Manufactured goods in which your Acid was used in a refrigerator for months, and also for nine months in a stove in which the temperature stands at over 150° day and night, and the bottles when examined to-day were as bright as the day they were put in.

—, LONDON.

I have pleasure in bearing testimony to the fact that first-class waters are produced, with greater body and finer fruity flavour, at half the cost of Citric; and further that your Acid is free from all traces of **LEAD**, generally found in the crystals.

LEMON STREET, ABERDEEN.

I am persuaded that your Acid will ultimately command the Mineral Water Trade.

Yours faithfully, WM. THOMSON.

"And may I also be permitted to add my testimony to the excellence of your Phospho Citric Acid; I consider it far and away preferable to Citric."

C. H. ORTON, STOKE GOLDING.

FERMENTATION.

When Fermentation is present, Saccharine Beverages made with this Acid will keep sound and bright several days longer than those made with Crystal Acids.

HASSALL & CO.
YORK ROAD, KING'S CROSS, LONDON.

TELEGRAMS:—"REMPUJARON LONDON."

"MONTSERRAT"



(TRADE MARK.)



"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

N.B.

"The "Montserrat Company's" Lime Fruit Juice and Cordials are now in large and general demand everywhere, and are being extensively advertised. Every Trader should stock them. Their success has caused many IMITATIONS to spring up, many of them utterly worthless Concoctions. It is, therefore, of utmost importance to Traders, as well as to the Public, to see that the Trade Marks of the MONTSERRAT COMPANY (Limited), and the SOLE CONSIGNEES, are on the Capsule of each Bottle. The word "Montserrat" is also duly registered as a Trade Mark. Legal proceedings will be instituted against all persons infringing the Trade Marks as above named.

Show Cards, Handbills, and Leaflets supplied free of charge.

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

"MONTSERRAT"

SOLE CONSIGNEES—

EVANS, SONS & CO., LIVERPOOL.

London: EVANS, LESCHER & WEBB. Canada: EVANS, SONS & MASON (Limited)

Montreal, Toronto, and Victoria, British Columbia.

UNITED STATES—E. C. RICH CO. (Limited), New York. AUSTRALASIA—JAMIESON & CO.

George Street, Sydney, N.S.W. Also Agents in nearly every part of the World.

KRONENQUELLE

(CROWN SPRING)

REGISTERED.

THE NEW NATURAL MINERAL WATER FOR GOUT & RHEUMATISM

May be had through all WHOLESALE HOUSES, or from the following:—

BRISTOL—Messrs. INGRAM & ROYLE; CHEMISTS' AERATED & MINERAL WATER ASSOCIATION, LIM.
EDINBURGH—Messrs. DUNCAN, FLOCKHART & CO.
HALIFAX—Messrs. KERR & JUBB.
LEEDS—Messrs. GOODALL, BACKHOUSE & CO.
LIVERPOOL—Messrs. INGRAM & ROYLE.
MANCHESTER—Messrs. WOOLLEY, SONS & CO.

LONDON—Messrs. INGRAM & ROYLE; Messrs. W. BEST & SONS; Messrs. GALLAIS & CO.; THE APOLLINARIS COMPANY, LIMITED; CHEMISTS' AERATED & MINERAL WATER ASSOCIATION, LIMITED.
NEWCASTLE—Messrs. JOHN ISMAY & SONS.
WREXHAM—CHEMISTS' AERATED & MINERAL WATER ASSOCIATION, LIMITED.

W. SCHACHT & CO., Sole Consignees, **LONDON, E.C.**

TEMPERANCE BEVERAGES.

A Sixpenny Bottle of

ADAMS'S EXTRACT OF HERBS

Will make 8 gallons of sparkling, wholesome, and refreshing

PRIME HERB OR BOTANIC BEER.

Unequalled in strength and richness of flavour by any preparation made from fresh herbs.

The Extract is very carefully manufactured, on the most improved scientific principles, from the herbs and plants gathered and dried at the proper season, when their virtues are in full vigour, thus retaining their invigorating and health-giving properties.

It makes an excellent beverage, giving natural flavour and colour, and a sparkling foam like bottled ale.

In Bottles, 6d. to make 8 gals.; 1s. to make 18 gals.; and 2s. 6d. to make 50 gals.

ADAMS'S GINGER ALE ESSENCE

makes a sparkling, refreshing, and invigorating beverage for summer and winter.

ADAMS'S SPARKLING FOAM PRODUCER.

One tablespoonful added to 2 gallons of the Herb Beer or Ginger Ale, just before bottling, gives a creamy foam like bottled ale.

Wholesale Agents,

W. EDWARDS & SONS, Queen Victoria St., London.

Specially favourable terms to large Buyers from the
PROPRIETOR,

B. ADAMS, Mansfield, Notts.

28

KINMOND'S

Royal Leamington

APNEUMATIC

TABLE WATERS

Were first supplied to H.M. the Queen in 1856,
and to H.R.H. the Prince of Wales in 1862.

KINMOND'S

GINGER ALE,

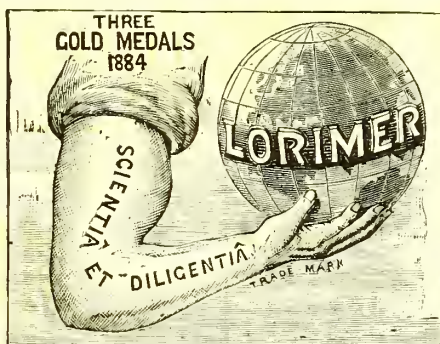
AND ALL THEIR OTHER WATERS,
Are UNRIVALLED for PURITY and QUALITY.

In Ordinary Bottles and Syphons.

MANUFACTORY—

LEAMINGTON.

Gold Medal, London.

THREE
GOLD MEDALS
1884

Two Gold Medals, Calcutta.



LORIMER & CO.

Manufacturing Chemists, Wholesale Druggists AND SPECIALISTS,

BRITANNIA ROW, ISLINGTON, LONDON, N.

Telegraphic Address—"CALISAYIN LONDON."

Telephone No. 7524.

PRICE LISTS of Drugs, Chemicals, Pharmaceutical Preparations, Medicinal and Household Specialities, &c., on application.

CHEMISTS who publish Price Lists will please apply to us for Advertisements, stating their terms &c. Certain of our Specialities are in steady demand, and yield a higher profit than any other Proprietary Goods in the market, and are not subject to the same competition in price.

SPECIALITIES.

CONCENTRATED WATERS, 1-40

Soluble Coated Pills

High Class Medicated Lozenges

CITRATE OF MAGNESIA

Lime Juice Cordial

FLUID EXTRACTS for TINCTURES

INFUSIONS, &c.

Flexible Capsules

COD LIVER OIL, TASTELESS

Flavouring Essences

IODISED OIL Extract of Malt

FERRI ET QUININE CITRAS, and

all Scale Preparations

Infant's Food, Malted

Pepsine and all Preparations

QUININE WINE

Packed and Bottled Drugs & Chemicals

Acid Glyc. of Pepsine

Effervescing Preparations

Liebig's Ext. of Meat

SACCHARINE and PREPARATIONS

Salad Oils

OLIVE OIL, SUPER. SUBLIME

Cocaine Lozenges

COCA WINE

Coca Jelly

Essence of Coffee

Essence of Coffee and Chicory

Fruit Syrups

Perfumery of all Descriptions

TEREBENE

SYR. FERRI PHOS. CO. (Gold Medal)

Saline, Effervescing

HYPOPHOSPHITE SYRUPS

Waters, Triple Concentrated

EAU LODOIS,

THE ONLY TRUE
HAIR PROMOTER.
PERFECTLY HARMLESS.

As recommended by the Medical
Profession, and testified to by
numerous Genuine Testimonials

Pomade Trichophile
FOR
Dandruff and General Scald
Diseases.

For Trade Terms apply to

THE FRENCH HYGIENIC SOCIETY,
58 CONDUIT STREET, LONDON, W.

HOMŒOPATHIC MEDICINES

REDUCED PRICES, SUBJECT TO CASH DISCOUNT.

	1s. SIZE.	6d. SIZE.	
Pilules	5/-	3/-	per dozen.
Tinctures	5/-	3/-	"
Camphor Solution or Pilules ...	5/-	3/-	"
Arnica External Tr.	7/-	4/-	"
Tamus	6/-	4/-	"
External Trs. (except above) ...	5/-	3/-	"
Liniments	8/-	4/-	"

SELECTIONS IN COUNTER SHOW CASES AT £2 12s., £3
£5 10s., £6 18s.

JAMES EPPS & CO.,
HOMŒOPATHIC CHEMISTS
(FIRST ESTABLISHED),
48, THREADNEEDLE ST., LONDON.

GREENSILL'S THE ORIGINAL

When ordering from **MONA** AND ONLY GENUINE.

Wholesale Houses
please specify **BOUQUET**
"GREENSILL'S."

SOLE MANUFACTURERS—

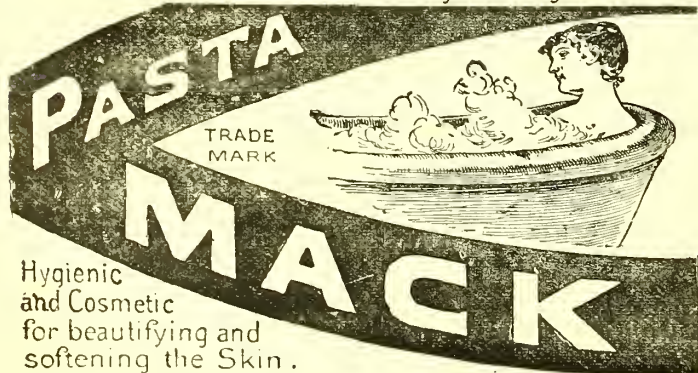
T. S. GREENSILL & SON
LOCH PARADE,
DOUGLAS, ISLE OF MAN.

LOOF AHS.

MAY, ROBERTS & CO. beg to inform the
Trade that they have received a very fine parcel—from 16 to 18 inches
in length—which they will be happy to supply at 4/6 per dozen,
cut or uncut, as required.

9 CLERKENWELL RD., LONDON, E.C.

A lovely Bath and Toilet Water
will be obtained by using



Hygienic
and Cosmetic
for beautifying and
softening the Skin.

30

This entirely new and excellent health-giving
preparation **SOFTENS THE WATER**, gives it a
most *delicious* odour, and

BEAUTIFIES THE COMPLEXION
in a most extraordinary way.

Should be in every Bathroom and Bedroom.

To be had of all respectable Chemists
and Perfumers throughout the World.

SOLE MANUFACTURER AND INVENTOR—

H. MACK, ULM a/D.

FREE SAMPLES

Given Away with every Trial Order.



FABRIQUE
DE
MATIÈRES PREMIÈRES DE
PARFUMERIE.

PARFUMERIES DE SEILLANS

(VAR, FRANCE).

Flower Pomades. Perfumed Oils. Flower Extracts.
Essential Oils. Distilled Waters, &c., &c.

OF ALL WHOLESALE DRUGGISTS, OR WHOLESALE ONLY OF

R. C. TREATT, Dunster House, Mincing Lane, London.

IMPERIAL HAIR DYE.

(REGISTERED.)

ONE LIQUID. — Harmless, Perfect, Permanent, and free
from Smell. Clear, and without Sediment.
Guaranteed to contain no lead, or any other noxious ingredient.

BLACK, BROWN, LIGHT BROWN, OR GOLDEN.

TRADE PRICE LIST:—

No 1.	1s. Od.	size	..	..	7s. Od.	per doz. Nett.
No. 2.	2s. 6d.	"	..	..	17s. 6d.	"
No. 3.	3s. 6d.	"	..	..	24s. 6d.	"
No. 4.	5s. Od.	"	..	..	35s. Od.	"
No. 5.	10s. 6d.	"	..	..	72s. 6d.	"

J. BRODIE, 41 Museum Street, **LONDON, W.C.**



**JOHN R. HALL'S
WOOD VIOLET.**

PATRONISED BY

H.R.H. The Princess of Wales.
H.R.H. Princess Christian.

H.R.H. and H.H. the Crown Princesses of Germany.
H.R.H. the Princess Louise (Marchioness of Lorne).
H.R.H. Princess Henry of Battenberg.
H.R.H. the Duchess of Teck, &c.

**EDWIN R. BIGGLESTON'S
HELIOTROPE ESSENCE**

The Queen, the Ladies' Newspaper, remarks:
"Edwin R. Biggleston's HELIOTROPE ESSENCE is delicate and durable; can be well recommended."

In Bottles. 1 6, 2 6, 5 6, 7 6, 10 6, and 21/.

EDWIN R. BIGGLESTON,
CANTERBURY.

**SHIPKOFF & CO.
OTTO OF ROSE**

MANUFACTURERS & MERCHANTS,
KIZANLIK, BULGARIA.

VIRGIN OTTO ONLY DEALT IN.

REPRESENTED IN ENGLAND BY

GEO. P. BAKER, 19 Ivy Lane, Newgate St., London, E.C.

**TETLOW'S
AMERICAN FACE POWDERS.**

6d. "SWANDOWN." 6d. 1/- "GOSSAMER." 1/-
3/6 per doz. 7/- per doz.

A Sample Bottle of perfume given with each box of Swandown.

A Metal Puff Box given with each box of Gossamer.

Chemists will find these articles most attractive for the Counter; they sell readily wherever shown. Quality is proved by constant and increasing sale. Supply of free samples with each order of 1 doz.

Order through your Wholesale House, or direct from London Depot—

HENRY C. QUELCH, 19 Ludgate Hill, LONDON, E.C.

London Chemists and Shippers are invited to call and inspect these articles.

EWEN'S GUARANTEED PURE LARD

Trade Mark.

ORIGINAL & BEST BASIS
FOR OINTMENTS, &c.

Trade Mark.



Adeps Præp. }
Adeps Benz. } EWEN'S



Can be obtained through any

WHOLESALE HOUSE.

Facsimile of Label. Mutton, Beef, Veal, and Deer Suet and Beef Marrow, Clarified Trotter and Neats' Foot Oil.

Every variety of **TOILET SOAP** from 56/ to 224/ per cwt.

EWEN'S Clarified Fat Works
Perfumery and
Toilet Soap Factory,
5 HATFIELD STREET, LONDON, S.E.

BEAUTY! BEAUTY!!

TOILET SPECIALITIES.

REGISTERED



TRADE MARK.

DIANE DE POITIERS.

Pommade de Diane de Poitiers
Crème de Diane de Poitiers
Savon de Diane de Poitiers
Poudre de Diane de Poitiers
Eau Dentifrice de Diane de Poitiers

Eau de Toilette de Diane de Poitiers
Eau Régénératrice de Diane de Poitiers
Eau Valentinoise de Diane de Poitiers

A most attractive Counter Show. Sell readily. Liberal terms to Trade. Prices on application.

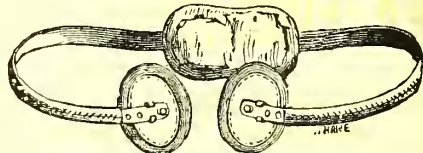
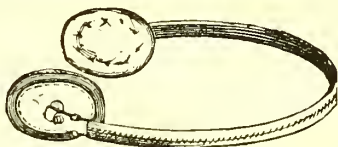
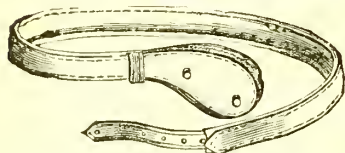
MARIE DU BOYER, 41 NEW BOND STREET, LONDON.



TRUSSES.



THE BEST FOR SHAPE AND QUALITY. FIRST PRIZE, 1879.



MANUFACTURED THROUGHOUT ON THE PREMISES.

GREAT FACILITIES FOR MANUFACTURE AND QUICK DESPATCH OF SPECIAL TRUSSES.

BAILEY'S TRUSSES FOR SCROTAL HERNIA.

BAILEY'S INDIARUBBER TRUSSES FOR INFANTS.

MANUFACTURERS and DEALERS in all kinds of SURGICAL APPLIANCES, WHOLESALE and for EXPORT
Shippers and the Wholesale Trade Supplied on Best Terms and Lowest Prices.

W. H. BAILEY & SON, 38 Oxford St., LONDON

ILLUSTRATED CATALOGUE AND TERMS ON APPLICATION.

IMPROVED SYRINGES

FOR THE
INJECTION OF GLYCERINE
TO RELIEVE CONSTIPATION.



PRICES TO THE TRADE—

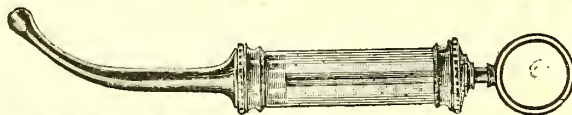
PEWTER, 8/ per dozen; PEWTER, with Glass Barrel, 12/ per dozen; VULCANITE, 30/ per dozen;
VULCANITE, with Glass Barrel, 30/ per doz.; CELLULOID, with Glass Barrel, 42/ per doz.

S. MAW, SON & THOMPSON, ALDERSGATE ST., LONDON

GLYCERINE SYRINGES.

Pewter, 7/6.

Vulcanite, with glass
barrel, 18/-



All Vulcanite, 21/-
Vulcanite, with straight
points, 13/6 per doz.

BATHING CAPS

In great variety at 5/-, 6/-, 7/6, 9/-, 12/6, 13/6 per dozen.

SPONGE BAGS.

PADDING DRAWERS.

ILLUSTRATED PRICE LIST ON APPLICATION.

F. SCHUTZE & CO., Shaftesbury Hall, 36a Aldersgate Street, E.C.

SCIENCE IN DIET.

LONDON]

JUNE 30TH.

[1888

Errors in Invalid Feeding.

The three prime foods of the invalid chamber are doubtless cows' milk, gruels and meat-soups. As ordinarily administered, these have been pronounced a delusion and a snare. The cows' milk curdles, and may thus do no end of damage. The starch is not acted upon by the secretion of the stomach, and may roll about in this organ for hours, aggravating the fever, causing delirium, and giving rise to no end of unpleasant symptoms. The beef-tea, as commonly made, contains, we are told by authorities, mainly the salts and stimulating principles of the meat.

MILK.

It is constantly pointed out that cows' milk differs from human milk in that the former, when taken into the stomach, forms heavy curds, while the latter only flakes. These curds are often as tough and hard as felt. Upon them the secretion of a disabled stomach may have but little effect. In gastritis, gastric ulcer, and dyspepsia, and in intestinal ulceration, diarrhoea, and peritonitis these curds have occasioned dire results. In typhoid fever, with the large intestine ulcerated, hæmorrhages have been attributed to them. "I have seen," says Sir William Jenner, "the patient restless, sleepless, or drowsy, his temperature raised several degrees above what it had previously been, vomit a quantity of curd, and at once the restlessness cease, the temperature fall, the skin become moist, and the patient drop into a quiet sleep, and the threatening symptoms vanish with the ejection of the offending material. Or the undigested curds may accumulate in the bowels, inducing flatulent distension and pain in the abdomen, restlessness and increased febrile disturbance. Under these circumstances, I have seen an enema of thin gruel bring away a large vesselful of offensive, sour, undigested curds. Or, again, the undigested curds may themselves irritate the bowels, and produce, keep up, or greatly increase diarrhoea." But it is significant that the domain of infant feeding is where the dangers from plain cows' milk appear most vividly—and yet milk is the only natural food for infants."

Writers on dietetics are constantly referring to the dangers attendant on the administration of plain cows' milk, and pointing out the best methods of overcoming the difficulties. In case of extreme illness, the best plan, without doubt (for it is the safest), is to predigest the milk; the process of predigestion being now readily accomplished, it only being necessary to add a *Zymine Peptonising Powder* (Fairchild), to each pint of milk, which should be kept warm for twenty minutes.

Milk prepared by this process agrees well with the stomach, will not curdle like plain milk, and is far more nutritious, because more assimilable, than the latter. It is certainly a boon to infants and invalids. It is suitable for all ordinary culinary purposes, and is even miscible with lemon-juice. The bland, soothing properties of milk prepared according to the foregoing directions place it foremost in the list of invalid and infant foods. It may be agreeably sweetened with Kepler Extract of Malt, which is sometimes used alone to make milk suitable for the digestion of infants and invalids.

GRUELS.

Of the two chief digestive ferments in the body that act on starch—the salivary and the pancreatic diastase—neither is often active in febrile diseases. The stomach having no noteworthy action on starch, in such cases gruel may roll about in the organ for hours. Gruels are ordinarily light and pleasant food, and in convalescence may prove of inestimable value; but in severe cases they should certainly be digested before they are given. If to a plate of warm gruel there be added a little Kepler Extract of Malt, the gruel will turn liquid at once, for this Extract liquefies and digests it quickly. When treated in this manner, starchy food becomes admissible. *Zymine* can also be used to digest starch.

BEEF-TEA.

Dr. Pavy appears to have been "the first to put in active practice the idea of preparing an artificially digested food." Beef-tea is necessarily made with heat, but heat coagulates the albumen of the meat, though the hot and cold water used dissolves out some salts and stimulating principles. The insoluble albumen which is coagulated by heat is therefore what is thrown away when the tea is strained. One writer says:—"If our patients are to be given beef-tea, it should be made in such a manner that the real substance of the meat shall be retained. To do this, all that is necessary is to predigest the meat. This may be done by adding $\frac{1}{2}$ drachm of *Zymine* to each $\frac{1}{4}$ lb. of meat used. By this means we shall effect what cannot be brought about by any other means except pepsin.

NOTE.

Milk, Gruels, and Beef-tea are of a delicate flavour, and are most acceptable to patients, when prepared with the *Fairchild* digestive ferments.

Zymine (Fairchild) supplied to the trade in $\frac{1}{4}$ -oz. and 1-oz. bottles at 20/- and 60/- per doz. Retail prices, 2/- and 6/- each. *Zymine Peptonising Powders* (Fairchild) in boxes containing 1 doz. tubes, supplied to the trade at 18/- per doz. boxes. Retail price, 2/- each. Supplied by all Wholesale Houses.

Above prices subject to usual discount.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, LONDON, E.C.

CHEMISTS who wish to confer a favour upon Medical friends can do so in no more practical a manner than by sending them a copy of the

Burroughs' Duplicate Prescription Book,

Which is supplied to Chemists at the nominal price of 2/ per dozen, less 10 per cent. discount, either direct or through any of the Wholesale Houses.

Particulars and opinions of the Medical and Trade journals appeared in last week's issue of THE CHEMIST AND DRUGGIST.

It is important to note that the insides of the covers are blank, and afford an opportunity for the Chemist to paste in advertisements or labels of any Pharmaceutical products which he may wish to bring before the Medical profession.

Specimen Books post free for Two Stamps.

BURROUGHS, WELLCOME & CO., Snow Hill, London, E.C.

HEARON, SQUIRE & FRANCIS

WHOLESALE AND

Established at



TRADE MARK.

EXPORT DRUGGISTS.

95 Bishopsgate St., 1714.

SELECT PREPARATIONS—"HERON" BRAND.

Cascara Cordial

(For Habitual Constipation).

Ess. pro Mist. Ferri Co.

Liquor Santal Co.

Pepsin Glycer. Acid.

Sol. Bismuth. Aromat.

Syr. Hypophos. Co.

Vin. Cocæ.

Cucumber Cream.

Cucumber Juice.

Cucumber Pomade.

EXTRACT OF MALT IN VACUO.

Keeps perfectly, and possesses the characteristic flavour of Malt.

INFANTS' FOOD MALTED IN BULK.

CONCENTRATED SOLUBLE ESSENCES,

For Flavouring Aerated Beverages.

ROLLED PILLS

UNCOATED AND GELATINE OR PEARL COATED.

5 COLEMAN ST., LONDON.



ESTABLISHED 1859.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICE :

NORMANBY CHAMBERS, MELBOURNE.

Published every Saturday.

Subscription 10s. per year, payable in advance; dating from the commencement of any month.

Post free to every country in the world. Single copies, 4d. each.

Supplied only to persons connected with the Trade

For Australasian subscribers the subsidiary journal THE CHEMIST AND DRUGGIST OF AUSTRALASIA is included.

Literary Contents.

	PAGE		PAGE
British Pharmaceutical Conference	833	French Pharmaceutical News ..	832
Consuls' Reports	838	Gazette	836
Correspondence:—		German Pharmaceutical News	833
Conservatism in Pharmacy;		Leaderettes	844
Washing Corks; Seasonable		Medical Gleanings	839
Articles; Sale of Oxalic		Metropolitan Reports	828
Acid; Syrup of Iodide of		New Companies	845
Iron; Military Compound-		Obituary	845
ers of Medicine	851	Patents	837
Chemists and the Medical		Pharmaceutical Nomenclature ..	834
Profession; A Disease of		Pharmaceutical Society of Great	
Sleep; The Syphon Trade ..	852	Britain	831
Dispensing Notes	853	Provincial Reports	829
Legal Queries	854	Trade Marks Applied for	835
Miscellaneous Inquiries	854	Trade Notes	835
Editorial Notes:—		Trade Report:—	
The Seller of Poisons	840	London	846
British Exports to France;		Chemicals in the North of Eng-	
The Companies Bill	841	land	850
Vegetable Products in Aus-			
tralia	842		

CIRCULARS TO THE TRADE.—We hope that firms who are thinking of issuing circulars to chemists and druggists will communicate with us before having them printed. We shall be able to insert such circulars in our issue of July 28, and will be happy to quote for the distribution of 11,000 copies. The price will be found much lower, and the results much better, than separate circulation through the post.

The publisher of *The Chemist and Druggist of Australasia* will make a tour through the United States, from San Francisco to New York, in the autumn. He will be glad to call on American firms *en route* who wish to talk with him concerning the drug business in the Australasian colonies.

CLIENTS of this journal visiting Melbourne for the Exhibition, or sending representatives there, are invited to make use of our office in that city (Normanby Chambers) as a postal address. On information being given to us in London that this will be acceptable, our Melbourne coadjutors will be promptly advised.

THE ART OF DISPENSING.—It will be remembered that of the numerous treatises which have been published in THE CHEMISTS' AND DRUGGISTS' DIARIES none have been more popular than those dealing with the art of dispensing. The eagerness with which those Diaries were bought satisfied us that there was a substantial demand for a work based on

the lines of those treatises, and an unceasing series of applications for a reprint which we have ever since received has added evidence of the want. We have decided to meet the general wish, and we are now getting ready for publication a much extended, and generally a newly written compendium, which will cover the art of dispensing with a fulness which we did not before attempt. The work will be unique in English literature, and will be one of the most useful companions which the pharmacist can have. Fuller details will be published shortly.

THE MEDICINE-STAMP ACT.—We have also to announce the early publication of a work of very considerable interest and value. In view of the practical and constantly-recurring difficulties attendant on the interpretation of the Medicine-stamp Act, and with the desire of reducing these, Mr. E. N. Alpe, of the Solicitor's Department of the Board of Inland Revenue, has written for us a very complete and interesting history and exposition of the law affecting patent medicines. Mr. Alpe has for years been intimately connected with the administration of the Medicine-stamp Act, and he is in a position to explain, not only its inherent intricacies, but also to declare authoritatively the opinions held at Somerset House in reference to points of doubt. Both as a contribution to the history of the drug trade and as a legal manual this work will have a peculiar value.

PARLIAMENTARY NEWS.

THE MANAGEMENT OF CHEMISTS' BRANCH SHOPS.

In the House of Commons on Thursday Sir Henry Roscoe asked the Vice-President of the Committee of Council on Education whether the statement reported to have been made at an inquest held at Lewisham on June 20, that the son of a chemist and druggist had dispensed eight grains of strychnine in one dose of medicine instead of one twenty-fourth part of a grain, is correct:

Whether the statements that the son of the chemist was often left in charge of his father's branch shop, and that he passed his examination when he was fifteen years of age, are also correct:

And, whether, in view of such an alarming accident, the Government will give facilities for the consideration of the Pharmacy Bill now before the House, which is intended to provide against such accidents by requiring all managers of branch shops to be qualified and registered.

Sir W. Hart Dyke, who was very indistinctly heard in the gallery, said he had no reason to question the accuracy of the statements referred to in the question. So far as the Government were concerned, they would be glad if the Bill to which the hon. member alluded could be proceeded with; but in the present state of public business they could not undertake to offer any special facilities for it.

IRISH PHARMACY ACT AMENDMENT BILL.

The House of Lords on Thursday evening went into committee on this Bill.

At the commencement of the discussion the Earl of Limerick stated that the noble Lord (Milltown) who had charge of the Bill and was also chairman of the select committee appointed to consider it, had requested him, in his absence, to propose certain amendments to carry out the recommendations of the select committee. The noble lord expressed his willingness to give any information which might be desired upon any of the clauses. The amendments on the paper were then taken *seriatim* and agreed to without debate, and the Bill passed through committee. These amendments will be fully referred to in our next issue.

ADVERTISEMENTS of employers and assistants can be received by us up to the first post on Friday mornings, and will be inserted in the current week's issue.

Metropolitan Reports.

TRADE OUTING.—On Saturday last the employés of Messrs. Walker, Troke & Co. took their annual excursion. Their destination this year was the Rye House, where a pleasant afternoon was spent amid the varied amusements there provided.

AN OVERDOSE OF COLOCYNTH.—An inquiry was held on Tuesday, at Hammersmith, by Dr. Diplock, coroner, respecting the decease of Lillie Eliza Anne Arnold, aged 32, the wife of a clerk, who had taken a large dose of colocynth, to remove "symptoms of illness"; from the effects of this dose she died. Mr. P. B. T. Stubbs, surgeon, stated that the deceased had swallowed about forty grains of the drug. Verdict, "Death from misadventure."

S. MAW, SON & THOMPSON'S SWIMMING CLUB.—The final heat of the third monthly handicap took place at Islington Baths on Monday last, and resulted, after a good race, as follows:—J. Piller, 21 seconds' start, first; W. Nash, 31 seconds' start, second; J. Bourne, 26 seconds' start, third. Won by four feet, and about two yards dividing second and third man.

VITRIOL THROWING.—A strange craze for vitriol throwing seems to be spreading among certain classes. It is becoming quite a fashionable amusement among the rowdy youth of the neighbourhood to squirt vitriol on every woman who is seen wearing a sealskin jacket or any other kind of fur garment. The effect is disastrous. Though not noticed at the time, no sooner does the victim go home than she finds her jacket falling to pieces. This stupid outrage is giving a great deal of trouble to the police in the north of London.

CONCERNED ACTION.—A remarkable incident occurred at the Bloomsbury School of Pharmacy the other day. It was revision lecture day in the theoretical chemistry department, and according to a growing custom in these parts the deputy-lecturer took up his post on the rostrum. From the heights of the lobby the students looked down one by one upon the amateur professor, and then unitedly retired to the library and elsewhere, while the deputy, tired of his audience of bare benches, wended his way to the research laboratory, where his services are better appreciated.

SHOREDITCH DISPENSERS.—At a meeting of the Shoreditch Board of Guardians last week, the medical officer reported that the temporary dispenser, Mr. Marks, had been sent home by him on the 13th inst. suffering from illness, and still remained very ill. Another man had been engaged who was doing the work remarkably well, and got the whole of his work done by one o'clock each day. Mr. Cox said he wished the guardians to notice this circumstance, because their regular dispenser, Mr. Laue, was always complaining that the work was excessive, and could not be got through without assistance.

CRICKET.—A match was played at Tufnell Park on Saturday, June 23, between the Chemists' Aërated and Mineral Waters Association Club and the Pharmaceutical Cricket Club. The score was as under:—

<i>The Chemists' Aërated and Mineral Waters Association.</i>			<i>Pharmaceutical Club.</i>		
J. H. Farbrother, run out ..	6		J. H. Quinton, c Pirie, b Doo ..	12	
E. Mellor, b Quinton ..	5		C. E. Greenfield, b Doo ..	1	
E. A. Doo, b Quinton ..	19		J. Kitchen, b Sturges ..	7	
F. G. Pirie, b Lamplough ..	7		J. Lamplough, c Doo, b Sturges	11	
A. J. Farbrother, b Lamplough	0		H. Sharp, b Sturges ..	6	
W. Morgan, b Quinton ..	1		Badley Jones, b Doo ..	11	
W. H. Sturgis, b Lamplough ..	19		E. J. Greenfield, b Sturges ..	2	
H. T. Butler, c Howard, b Quinton ..	1		E. F. Howard, b Sturges ..	0	
J. Moore, b Quinton ..	7		George Mitchell, run out ..	0	
E. Pesbit, b Quinton ..	2		G. E. Jones, b Doo ..	1	
A. Gray, not out ..	4		W. H. Baker, not out ..	0	
Extras ..	10		Extras ..	10	
Total ..	81		Total ..	55	

THE PRECAUTIONS OF CHEMISTS.—A miserable-looking woman, who gave the name of Jemima Gurd, and who carried a young baby in her arms, was charged at the Dalston Court, on Saturday last, with attempting to commit suicide

by taking a quantity of oxalic acid. From the evidence of a police-constable and a doctor, it appeared that the woman had had a narrow escape from death. The woman said it was through domestic troubles, and she was remanded. The magistrate directed the police to bring before him the chemist who had sold the poison to the woman; and Mr. J. Rogers, chemist, of Church Street, Stoke Newington, and his assistant, C. H. Ward, attended, and produced the books, showing that the Act of Parliament had been complied with. The assistant said that the woman first asked him for arsenic, and as he refused to serve that she asked for oxalic acid, and said she wanted to kill the rats. She asked the witness if the acid would kill her or the children, and was told it most decidedly would, and that she must be very careful in its use. The assistant added that he gave the woman every caution. Mr. Smith said he considered this explanation satisfactory. [Surely the magistrate was going beyond his powers in thus demanding, in an informal manner, the attendance of a chemist in regard to a sale the registration of which is not required by law.]

THE MERCHANDISE MARKS ACT.—This Act has been invoked at the Lambeth Police Court in reference to an article sold as "choice refined lard," alleged to be a false trade description in the meaning of section 2 of the Act. The prosecutor was Ernest Seymour Salaman, on behalf of W. Kilvert and others, and the defendant was Henry Trengrouse, of Sun Wharf, Tooley Street. Mr. Bland appeared in support of the summons, and Mr. McCall for the defendant. Mr. Poland opened the case, and mentioned that a few months back there had been some agitation with regard to adulteration of lard forwarded from America. The defendant was an agent of the "Harmer Packing Company," and had supplied through a traveller a number of pails of lard marked as choice lard to Mr. Shaw, of Walworth Road. Samples had since been analysed and found to be adulterated. Mr. Shaw said he gave an order to the traveller of defendant for 5 cwt. of lard on April 25. He asked the traveller if he could guarantee it pure, and he said he could not do that, but he believed it was so. He had been in business a good many years, and had always understood lard to mean the fat of the pig. Witness afterwards received twenty pails of lard and paid for them by cheque. Cross-examined: He dealt in lard; had previously dealt in American lard, but not in this kind. Harmer's lard was well known. The traveller said he sold the lard as he got it. Mr. Alfred G. Salaman, analytical chemist, said that on the 30th April he went to the premises of the last witness, and there saw a number of pails. He had analysed the contents of two of the pails, which were marked, "Harmer Packing Co.—Pure Refined Lard—Kansas City, U.S." He found on examination not less than 30 per cent. of cotton-seed oil. Mr. Bernard Dyer, analytical chemist, confirmed this analysis. Mr. McCall, in defence, said that the real point was, had the defendant, within the terms of the section of the Act, taken all reasonable precautions against committing an offence against the Act? He suggested it was not really the prosecution of Mr. Shaw, but of rival traders to the Harmer Packing Company. After some further observations he called the defendant, who said he received the lard from Bristol on a delivery warrant. He had never any reason to doubt the genuineness of the lard. Although he received the lard through a Bristol house, he knew it was what was known as "Harmer's" lard. He received the certificate produced, and acted upon it. After these proceedings had been started he at once consulted two other analysts, and then for the first time found the lard was adulterated, and he at once had the pails marked "mixed." By Mr. Poland: He had heard, he believed in February last, that all the American lard imported was mixed with cotton-seed oil. After some further argument, Mr. Biron said, looking at all the circumstances, the summons must fail. The defendant, he had not the slightest doubt, had upon former certificates which pronounced the lard pure acted with good faith. Finding, however, that there was still some argument as to the lard being unadulterated, he at once had an analysis made on his own account. He (Mr. Biron) believed the defendant had done all a man could do under the circumstances. He sold the article exactly as he received it. In conclusion Mr. Biron said he had not the smallest hesitation in dismissing the summons, and allowed the defendant 10*s.* costs.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BIRMINGHAM.

MR. WILLIAMS, who for some months has suffered from ill-health, has resigned his position as manager to the well-known firm of Philip Harris & Co., chemists and druggists, of this town. Mr. Williams had been in the employ of the firm for many years, and is held in the highest estimation.

LADY DISPENSERS.—The following advertisement appears in one of the Birmingham newspapers:—"Lady Dispensary Pupil.—There is a vacancy in the dispensary of the Skin and Lock Hospital for a young lady as articled pupil. Must be quick, intelligent, and well educated. An exceptional opportunity for those wishing to qualify for the Pharmaceutical Society."

A SAD STORY.—An inquiry was held by the coroner for the district of West Bromwich (Mr. Hooper) on Friday of last week into the circumstances attending the death of Sarah Ann Phillips, aged 20 years, who died in the district hospital the previous Wednesday. Deceased was to have been married on the day of her death. The bridegroom, a man named Scott, after making all arrangements, failed to put in an appearance, and this so troubled the girl that she took a dose of laudanum, from the effects of which she died in the course of a few hours. George Burch, dentist and chemist, said he supplied the deceased on the day in question with three pennyworth of laudanum. John V. Webster, of the New Supply Stores [not a registered chemist], and Joseph Dancer, assistant to Mr. Tunby, chemist, also each supplied deceased with three-pennyworth of laudanum. The jury returned a verdict that the girl committed suicide whilst temporarily insane. The coroner referred to the cruelty and heartlessness of Scott, who he thought deserved a good horsewhipping.

AN UNQUALIFIED MEDICAL PRACTITIONER.—An inquest was held on Thursday of last week by Mr. B. Weekes (deputy-coroner for Birmingham) on the body of Margaret Hart, aged 2 years. The child was taken ill, and her mother took her to a dispensary in Monument Road, in the window of which establishment was a card bearing the name "Dr. McLannon," and particulars respecting hours of attendance and charges. A Mr. Millership attended for some days. This gentleman at first said the child was suffering from diphtheria, and afterwards stated that she had an attack of croup. As the infant continued to get worse, Millership obtained the services of Mr. Tovey, surgeon. Mr. Tovey told the coroner that death resulted from convulsions accelerated by croup. Millership informed him that Dr. McLannon had attended the child. The deputy-coroner said that unless Millership could give a satisfactory explanation he had the appearance of having obtained money by false pretences. He suggested that the jury should take cognisance of the man's conduct in order to put an end, if possible, to the illegal practices which he had so scandalously indulged in. The jury merely returned a verdict of "Death from natural causes." The deputy-coroner said, notwithstanding the action of the jury, he was still of opinion that the case was one which should be taken up by the proper authorities.

DONCASTER.

NOT LIABLE.—At the Doncaster County Court on June 22, before Judge Bristowe, an action was brought by Messrs. Shaw & Co., chemists, Market Place, against the Doncaster Corporation for the sum of 3*l.* 10*s.*, in consequence of damages to a van which had been left in charge of certain servants of the Corporation. It was alleged that the van should have been placed for security in the Wool Market, and this not having been attended to damage was done to the extent claimed. Liability was repudiated, as it was contended the plaintiffs had not taken needful precautions. Verdict for the defendant.

LAUNCESTON.

THE GREAT WESTERN OCHRE WORKS, Lezant, Launceston have commenced business. They claim to be able to supply ochres of quality such as has hitherto been obtained from French sources exclusively.

MANCHESTER.

KILLED ON THE RAILROAD.—Percy John James, aged 22 years, of Manchester, was killed on the railway near Bamber Bridge late on Friday night. He was a druggist's assistant, and had been with Mr. Hadfield, of Ribbleson Lane, Preston, about two years. He had missed the train for Preston at Bamber Bridge, and it is supposed that he was walking down the line to catch a train at Preston Junction from Liverpool when he was struck by a passing train. An inquest was held on Monday, when a verdict of "Accidental death" was returned.

MURDER MANIA.—Samuel Kirkpatrick, aged 17, the son of a chemist living in New Bridge Street, Manchester, was charged on Tuesday at the Police Court on remand with the attempted murder of a little boy named John Finneran, 7 years of age, son of a labourer living in Dalton Street, Newtown. He had thrown the child into the river and then ran away. Two boys who came up saw the lad struggling in the water, dragged him out, and took him home. The prisoner had been previously before the magistrates charged with having thrown a boy into the Rochdale Canal, but after being medically examined he was given over to the care of his parents. Dr. Reynolds had examined the prisoner that morning, and certified that he was of unsound mind, and the bench ordered Kirkpatrick to be sent to the Prestwich Asylum.

NEWCASTLE-ON-TYNE.

THE LATE MR. JAMES CROZER.—This old gentleman, whose death under curious circumstances we reported last week, had had a somewhat interesting history. He was born at Alnwick on June 9, 1813, the eighth child in a family of nine. An elder sister, born February 9, 1799, another sister, and a brother, both older than himself, survive him. After his school days he was apprenticed to Mr. James Sharp, a chemist in the High Street, Berwick-on-Tweed. Subsequently he obtained employment with Mr. Garbutt, of Gateshead, but a little later commenced business on his own account by opening a small chemist's shop near St. Nicholas' Cathedral in Newcastle. Not satisfied with his position, he next obtained a situation in America as a dispensing chemist. After being in the United States for about three years, he visited Cuba, Jamaica, and other places in the West Indies. In Jamaica he earned a living by teaching the natives to read and write, but gave it up, assigning as his reason that he did not care to take their hard-earned pence for their school fees. Quitting the place suddenly in a vessel with the appropriate name of *Exit*, he again journeyed to America. Here he appears to have "fallen upon evil times," as he was compelled to earn his livelihood as a common labourer on the highways. Eventually he managed to return to his native land, and resided with his father, who was at this time living at Wallsend. He had not been at home long when the old roving spirit came over him, and he took ship for India and settled at Benares. There he remained for about three years, and left the place shortly before the outbreak of the Mutiny. He journeyed to China, and resided at Hong Kong and Shanghai. At these places he acted as dispenser in a hospital, and then as surgeon on board the *Rajah* and on other ships belonging to a line of vessels running between Shanghai and the islands in the Indian Ocean. About twenty-five years ago he bade good-bye to the Flowery Land, and started business as a chemist in Clayton Street, Newcastle. There he did a good business, but did it in a somewhat eccentric manner. He always kept his shutters up, but he sold good drugs and sold them cheap, and was invariably respectful to the poorest of his customers. About eighteen months ago he retired, and since then lived in a little cottage at Brandling Village. Here he resided alone, and shut himself in, as it were, from the rest of the world. His bed consisted of two trestles and an old box corded together, and at the top was placed a spring mattress. His

household furniture consisted of three or four chairs, a box, a lot of shop fittings, and a nest of drawers. In the middle of the floor was an iron safe containing a quantity of paper. Evidently he must have been musically inclined, as there were a harmonium, several musical boxes, and one or two tin whistles. There were also books scattered about, some of them treating upon chemistry, the human frame, and mathematical subjects. Two drawers were filled with religious publications, including several manuscript copies of Moody and Sankey's hymns. On the mantelpiece there were a number of bottles containing medicinal compounds and drugs. The deceased laid the foundation of a fortune in China, and also managed to save money in Clayton Street, leaving, in fact, between 3,000*l.* and 4,000*l.* His principal savings are invested in a bank in China. Personally, he would not spend unnecessarily upon himself, but to others he was exceedingly generous. He was always ready to assist a friend in misfortune, either by supplying medicine gratuitously or lending money. He was, therefore, not a miser in the ordinary sense of the term, as many poor persons can testify to the kindly advice they received regarding their complaints, and at times gifts of medicine. As might naturally be expected from his mode of living, he was entirely indifferent as to dress. In summer and winter he might be seen either at his shop counter or walking along the streets in the same suit of clothes. He was tall, with a quiet reserved manner, cautious in speech, but always kind to all with whom he came in contact.

NORTH SHIELDS.

FIRE.—A serious fire occurred on the premises of Mr. Stobbs, chemist, Saville Street West, North Shields, on Tuesday, breaking out in the night in a store-room at the back part of the building and blazing violently for two and a half hours. A great deal of damage was done.

NOTTINGHAM.

INACCURATE WEIGHTS.—Mr. Eldred Faull, chemist, Beeston, was visited by the inspector of weights and measures, and six weights were found below the proper standard. He was fined 5*l.*

ST. ASAPH.

PRACTISING AS AN APOTHECARY.—The Apothecaries' Society brought an action last week in this County Court against Mr. Thomas G. Williams, Bryntey Cwm, to recover penalties for his having practised without being duly qualified. It appeared that the defendant had served for four or five years with Dr. Pierce, of Denbigh, and had passed the preliminary examinations at Aberdeen University; but, instead of passing his final examination and qualifying himself, he attended and prescribed for patients in the neighbourhood of his house, acted as medical officer of a club, and, in fact, to all intents and purposes, practised as a medical man without qualification. Defendant admitted the statement of the society, and judgment was entered for the latter for 20*l.* and costs, the plaintiffs undertaking to reduce the penalty to a nominal sum.

WALSALL.

EARLY CLOSING.—The chemists of this town, following the example of the drapers and grocers, have unanimously resolved to close their places of business at four o'clock on Thursdays, making provision to attend to urgent cases.

IRELAND.

BELFAST.

NORTH OF IRELAND CHEMISTS' AND DRUGGISTS' ASSOCIATION.—The monthly meeting of the Board of Management of this Society was held on Monday evening last, Mr. Samuel Clotworthy, vice-president, in the chair. The secretary, Mr. W. J. Rankin, read letters from the Earl of Milltown and Mr. A. J. Balfour in relation to the Pharmacy Act Amendment Bill now before the House of Lords. The report of the deputation who had given evidence before the Select Com-

mittee of the House of Lords on the 15th inst. was received and considered very satisfactory, inasmuch as several important concessions would now be made in the interests of the chemists and druggists of Ireland, a notable one being the provision of an examination for the apprentices and assistants of *bona-fide* chemists and druggists. Some routine business having been transacted, the meeting adjourned.

KILKENNY.

MORPHIA-POISONING.—A young doctor named Lyons, suffering from sleeplessness, took a dose of morphia on Saturday night last, and probably took more than he intended. He died during the night from the effects of narcotic poisoning.

SCOTLAND.

ABERDEEN.

MR. A. M. SHEPHERD, who has been for some years in Kurrahee, is looking around for a suitable opening.

ABERDEEN DISPENSARY.—The directors have again met, and by a majority of 9 to 2 elected Mr. Beedic as dispenser, and agreed to give him an apprentice assistant in view of the largely increased work. We were scarcely prepared for such an announcement after their unanimous resolution last week to appoint a duly qualified man. Mr. Beedic has been dispenser for twelve years in the Union Street establishment of Messrs. Davidson & Kay.

ABERDEEN AND NORTH OF SCOTLAND SOCIETY OF CHEMISTS AND DRUGGISTS.—This year the annual outing took the form of a picnic, and with the ladies' company we feel bound to admit it was the most enjoyable we have ever had. The company (about twenty-six) left by the 10.10 train for Aboyne, and thence drove by Dinnet and Glen Tanar to a choice spot on the south bank of the Dee, immediately behind the old churchyard of Glen Tanar. After a substantial repast the company joined in various games and sports, spending a very enjoyable afternoon all too short to come only once a year. During the afternoon our gallant leader (Mr. Ritchie, whose "foot was on his native heath") with his usual forethought arranged to get a telegram sent to his *shieling* containing the result of the Edinburgh election. At the time of its arrival the company were gathered on the bank of the river, and on the motion of Mr. Ritchie, in a very humorous speech, a hearty bumper was drunk to Messrs. Paterson and Strachan, the two "north-country" men returned, who briefly replied. Through the kindness of Mr. and Mrs. Ritchie the company sat down to a sumptuous tea, after which carriages were in waiting for the return journey to Aboyne, *en route* for Aberdeen, which was reached about 9 P.M. The company were warm in their thanks to Mr. and Mrs. Ritchie for their unwearied efforts to promote their comfort and enhance their pleasure during the day.

EDINBURGH.

A CHEMISTS' CLUB.—There is, we hear, a movement on foot to form a pharmacy club in Edinburgh. There has been a feeling among chemists in Edinburgh—perhaps Scotland would be more accurate—for some time that something of the kind was wanted. So far as we have heard the objects of the club would be social rather than political, and membership would not be confined to Edinburgh chemists. We do not know to whom the happy thought occurred, but we suspect the idea originated with Scotland's only and excellent representative. We hope to hear more of it.

CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.—The second botanical excursion of the season took place on the evening of Wednesday, June 20, and was attended by thirty-three members. The company travelled by rail to Colinton and walked back to the city by the banks of the Water of Leith, through Colinton Dell, and then round by Craiglockhart to Merchiston. The dell is at present luxuriant with the blossom of *Æsculus hippocastanum*, *Crataegus oxyacantha*, *Cytisus laburnum*, *Cytisus scoparius*, and *Pyrus aucuparia*. A large number of wild flowers were collected by the explorers, and on a grassy bank overlooking Kate's Mill they obtained fine specimens of *Orchis mascula*. The ramble was thoroughly enjoyed by all. The next excursion is to Craigcrook Quarry on Wednesday, July 4, by Caledonian train at 5.50 A.M.

Pharmaceutical Society of Great Britain.

At a meeting of the Board of Examiners, appointed under the provisions of the Pharmacy Acts to examine persons desirous of carrying on the business of pharmaceutical chemists and chemists and druggists, held in London on June 20, 21, and 22, the following passed and were certified for registration as Pharmaceutical Chemists:—

Ashfield, Armishaw, Stratford-on-Avon	Harrison, Richd. Casswell Clark Birmingham
Davies, Jas. Jno., Newcastle Emlyn	Hoare, Wm. Herbert, Windsor
Forster, Jas. Beaty, Carlisle	Muskett, Fredc. Jas., Newport Pagnell

The following also passed, and were certified for registration as Chemists and Druggists:—

Allan, Alexander, Aberdeen	Jones, David Lloyd, Eglwysrwr
Baker, Herbert Wm., London	Keeble, Jas. Purell Edmed, St. Mary Cray
Baxter, Geo. Munnerley, Chestre	Lance, Wm. Davis, London
Boxall, Fredc., Horsham	Lyons, Wilkie Cathbert, Monmouth
Brooks, Jno., London	Mander, Alfred, Coventry
Browne, Frank, Northampton	Moore, Jno. Phillips, London
Butcher, Wm. Frede., Blackheath	Morrell, Chas., London
Bygott, Jno. Wm., Huddersfield	Paddock, Wm. Geo., Cosham
Calkin, Jno. Ernest, Salisbury	Penty, Geo., Manchester
Cross, Edwd. Robert, Scarborough	Rice, Jno. Wm., Winchester
Fowler, Wm. Hy., Chelmsford	Rix, Fletcher Swindells, Ipswich
Griffiths, Hy. Thos., St. Clears	Rutherford, Wm., Retford
Herington, Horace Edwd., Leighton Buzzard	Skipworth, Bertram Geo., Grantham
Humphreys, Hy., London	Tudor, Wm., Carmarthen
Jenkins, Jno. Daniel, Swansea	West, Geo. Wm., Stokesley
Jenkins, Owen Jno., Neath	Whitworth, Jas. Wm., Oldham
Jennings, Richd. Tildesley, Tewkesbury	Wybrant, Andrew, Falsgrave

NORTH BRITISH BRANCH.

THE first meeting of the newly appointed executive was held on Wednesday, June 27, at 2 P.M. There were present Messrs. Baildon, Boa, Gibson, Gilmour, and Stephenson, Edinburgh; Messrs. Paterson and Strachan, Aberdeen; Mr. Fisher, Dunfermline; Mr. Kermath, St. Andrews; Mr. Kinninmont, Glasgow; Mr. Lawrence, Oban; Mr. Nesbit, Portobello; Mr. Watt, Haddington.

Some of those present had to make an early start to attend the meeting, the member from the West Highlands, for example, having left home at 5.30 A.M.

After approval of the minutes of the previous meeting, the

ELECTION OF OFFICERS

was proceeded with.

Mr. J. B. STEPHENSON, in proposing the re-election of Mr. Baildon as chairman, said his conduct during his occupancy of the chair had been as nearly perfect as they could wish. He was aware that Mr. Baildon had a little hesitation in accepting the office again, for, as they all knew, Mr. Baildon's professional career was at present in a somewhat transition state. However, in anticipation of what Mr. Baildon might say, he might put it to the meeting, as he had already put it to him, that, so long as he could see his way to continue to represent them on the Council in London, it was desirable for them—in fact, they were entitled to put a little pressure upon him—to continue in the position of the chairman of the North British executive.

Mr. Gilmour seconded the proposal, and on his suggestion the same motion included the re-election of Mr. Watt as vice-chairman. Mr. Baildon, in accepting the office, in allusion to the remarks which Mr. Stephenson and Mr. Gilmour had made, said he recognised that there was an advantage in his being a member of Council, and also being in the chair at these meetings in the absence of the president or vice-president of the Society. At the same time, from his own point of view, he might be allowed to say the advantages were not altogether unmitigated, for he had, as it were, a double capacity and a double part (he hoped not in a bad sense) to play, and therefore his responsibilities were increased. He felt that he was bound, of course, to act loyally both to the Council and to the executive, and in the past one had had occasionally a difficult part to play. At

the same time he admitted there was a force in what Mr. Stephenson had said, that if one was in the Council, seeing the workings of the Society, one was in a position of vantage to conduct the affairs of the branch here. He only wished that the constitution of the Society were such that more of them could pass through the Council, not only from Scotland, but from other parts. He felt assured that the reason of the unpopularity, if he might call it so—for there was a great amount of unpopularity from which the Council suffered—was in a great measure due to the fact that there was not sufficient knowledge of the amount of work, and the nature of the work, and the difficulty of the work, which the Council had to undertake. He had expressed his regret before, and took occasion to do so again, that his friend Mr. Watt had not been elected to the Council. Mr. Watt was one of those men who would make a splendid member of Council—(Hear, hear)—and he was quite sure he might say, and without any breach of confidence, that was the opinion of members of Council themselves.

Mr. WATT said he would be much obliged to the members if they would release him from the office of vice-chairman. The responsibility he had taken upon himself in connection with the provostship of Haddington was a greater load than he could bear when added to the onerous duty they had asked him to undertake. He proposed Mr. Storrar, of Kirkcaldy, for the office.

Messrs. Kermath, Nesbit, Stephenson, the Chairman, and others warmly urged Mr. Watt to reconsider his determination, and ultimately that gentleman yielded to the pressure put upon him.

The members of the executive residing in Edinburgh were appointed a General Purposes Committee, charged with the general management of the minor work of the executive.

THE PRELIMINARY EXAMINATION.

Mr. KERMATH called attention to the fact that the junior or senior certificates of the local examinations of the University of St. Andrews were accepted *pro tanto* by the Pharmaceutical Society in lieu of the Preliminary examination. He thought this ought to be more widely known, as there were over thirty centres where the examinations were held, some as far north as Oban, and it would be in many cases, he thought, more convenient for lads to pass this examination at their own locality than go to the centres where the Preliminary was held.

Mr. PATERSON (Aberdeen) pointed out that the Scotch Education Department were instituting a leaving certificate for the secondary schools. That would be a much more severe examination, he believed, than the local University examinations; and, that being so, they ought to make a representation to the Council that they accept that certificate equally with the University local examination. It took a great lot off a young man's mind to get an examination through; and although the certificate he had mentioned was instituted this year, and was tentative, no doubt it would become quite common.

The CHAIRMAN asked if any statement had been received as to the subjects.

Mr. GILMOUR thought it embraced some fifteen or sixteen subjects, including English, arithmetic, Latin, and mathematics. It was, however, a tentative scheme in order to see how it would work. The examinations for a Government certificate in the Merchant Company's schools in Edinburgh were even much more stringent than those of the Universities.

A vote of thanks to the Chairman brought the proceedings to a close.

CRYSTALLISED magnesium chloride is rendered anhydrous and the formation of basic salt prevented by heating it in a current of hydrochloric acid gas.

FIRE AT DELACRE'S ENGLISH PHARMACY, BRUSSELS.—On Friday of last week a fire broke out in the basement of the large pharmacy of M. Ch. Delacre, Rue Montagne de la Cour, Brussels. An assistant had gone downstairs for some ether, and, having lighted a match to find it, overturned the bottle, the contents of which at once took fire. The flames spread to some other chemicals and took hold of a part of the woodwork before the arrival of some engines. The place was deluged with water and a good deal of damage was done, but all danger was over in half an hour. The pharmacy is situated in the most fashionable quarter of the city.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

EXPOSITION OF HYGIENE.—A sanitary exhibition will be held in the Palais de l'Industrie Buildings, at the Champs Elysées, after the closing of the Salon. It is expected the exposition will open on July 20. For further information exhibitors may address M. Louis Bourne, 2 Rue de Provence, Paris.

VICTIMISING PHARMACISTS.—A medical-looking man is now preying on Paris pharmacists. Under the pretence of having an urgent case to attend he presents a large order for a whole assortment of antiseptic bandages and appliances. As some article or other is sure to be out of stock, he leaves a false address, takes away with him all he can, and disappears.

INTERNE PHARMACISTS.—The result of the competition, held this year as usual, has just been published. The names of the forty successful pharmaceutical students, however, are not of sufficient interest outside of this city to be here set forth. The winners in the lottery—a competition is but little else—will be entitled to a position for three years in some hospital or asylum. The unsuccessful will have a chance to try again next year.

CONDEMNING SACCHARIN.—The Seine Council of Hygiene, at their meeting of June 22, received a committee report on saccharin, presented by Dr. Dejardin-Beaumetz and signed by MM. Péligré, A. Gautier, Jungfleisch, Proust, and Riche. The committee declare saccharin to be not an aliment but a medicament. They are, moreover, convinced its only use in industry will be for adulterating alimentary products. The report was unanimously adopted by the Council. The probable consequence will be the prohibition of saccharin in all articles of food.

THE NIGHT PHARMACEUTICAL SERVICE.—According to an agreement between the administration and the pharmacists' syndicate, no syrup or mixture of syrups shall be dispensed in quantities exceeding 100 grammes in weight, and no pills exceeding 10 in number. Potions may run up to 150 grammes. No fancy syrups shall be dispensed unless they form a part of a mixture prescribed by the physician. To avoid all uncertainty the prohibition applies to the following:—Maidenhair, cherry, raspberry, gum, currant, and simple syrups. The idea is obviously to supply the sick with medicines, but not the thirsty with refreshments.

WHOLESALE LEAD-POISONING.—The little town of Nexon, in the Haute-Vienne department, was recently excited over a series of poisoning cases occurring almost at the same time. Some twenty persons were taken with violent colics, and several of the patients became dangerously sick. A judicial investigation having shown that they all dealt with the same baker, some of the flour was seized, and upon analysis, it is said, proved to contain lead. The flour has been traced to a prominent miller, who will no doubt be prosecuted. How the lead found its way into the flour has not transpired yet, but it is to be hoped the expected trial will clear up this most interesting point of the affair.

A NEW TOOTH-WASH.—M. Sacc, of Cochabamba, Bolivia, a corresponding member of the French Agricultural Society, forwarded to the association, at their last meeting, some seeds of the *Geranium suella*, a plant of considerable value as a dentifrice. The root, dried and coarsely powdered, is to be steeped in twice its weight of 98 per cent. alcohol, and thus affords a very fine red tincture, which is applied with great benefit to decaying teeth with a little pledget of cotton wadding. Some ten drops of the preparation, in a glass of water, will make a mouth-wash surpassing anything known. The plant, M. Sacc thinks, can be grown in the south of France, and most likely also as far north as Paris. If so, it will probably be heard of again before long.

DEATHS FROM DRINKING COLD WATER.—In the fertilisers works of M. Leblanc, at Prairie-au-Duc, near Nantes, eleven deaths from pneumonia recently occurred among the workmen. Some attributed the epidemic to a cargo of guano brought by an English barque, which had possibly introduced

at the same time the germs of the disease, and others laid the mischief on a lot of *poudre* mixed in with the phosphates. Finally M. Leblanc called three physicians into consultation, who after examining the works, their sanitary conditions, water supply, &c., declared everything to be perfectly satisfactory. But as the deaths had to be accounted for, they gave it as their opinion that the pneumonia was due to the workmen's practice when over-heated of taking copious draughts of icy water from a cooler set up for the professional uses of the chemist in the establishment.

NO MORE DRUNKENNESS.—The classic remedy against inebriety is, of course, to abstain from drinking. But M. Jean Desbouvrie, of Roubaix, recently proposed to the Academy of Medicine something that would better please the lovers of the cup. From experiments made upon himself he is satisfied all the noxious effects of alcohols can be avoided if the drinker will take the precaution of fortifying his stomach beforehand with an appropriate food containing an adequate proportion of albuminous and fatty substances. M. Desbouvrie, therefore, has invented a chocolate containing a certain proportion of albumen, specimens of which were sent to the Academy, together with the memoir. When you feel like going on a spree, all you have to do is to munch a stick of the chocolate, and you may have a good time of it without fear of the morrow's headache. But as French ideas of drinking are very moderate, perhaps more than one stick would be necessary for foreigners. At the meeting of June 19 Dr. Lancereaux spoke rather unfavourably of the chocolate, basing his opinion on the general principle that confirmed drinkers will spend all their money at the public-house, and waste none on the chocolate dealer. As he, however, brought forward no facts to support his conclusion, and none against the value of the remedy, the question may be said to remain open.

IS POTASSIUM CHLORATE INCOMPATIBLE WITH THE IODIDE?—The generally accepted opinion is that chlorate of potassium should not be administered at the same time as iodide of potassium, for the reason that on boiling the two salts together a poisonous compound—potassium iodate—will be formed. MM. Chuche and Desgrez have now come forward to disprove this opinion, and relate the following experiments to support their views. First a mixture of iodide and chlorate dissolved in water was kept in a test-tube for two hours at a temperature of from 35° to 37° C. (95° to 99° F.) by means of a water-bath. The test for iodate, namely, acetic acid and chloroform, proved that none had been formed. The second series of experiments consisted in the addition of very weak lactic acid to the same chlorate and iodide solution, to be heated in the water-bath. The idea was to more exactly represent the normal conditions of the digestive process. On testing, as before, a light pink colour developing in the chloroform showed the presence of minute traces of free iodine. Finally, to ascertain whether the liberated iodine was owing to the formation of an iodate or to the usual effect of acids, the experiment was repeated with iodide of potassium and lactic acid, without chlorate, all the conditions remaining otherwise exactly the same. The result was, on testing, a pink coloration of the chloroform of precisely the same tint and depth as in the preceding experiments. Hence MM. Chuche and Desgrez have come to the conclusion that, since no iodate was formed under conditions resembling those of digestion, the chlorate and the iodide of potassium are not incompatible. Such a deduction, it is scarcely necessary to remark, is rather premature. The experiments quoted only show that in a glass tube, at a temperature below 100° F., chlorate of potassa will not, as it does at 212°, turn iodide into iodate of potassium; but they prove nothing as regards the chemical changes in the system, still less do they counterbalance the poisoning cases on record caused by the simultaneous administration of the two salts.

PHARMACY IN RUSSIA.—A Reuter's telegram, dated St. Petersburg, June 20, says:—"The Russian Government has granted permission to women to devote themselves to the pharmaceutical profession, provided they pass the same examinations as are established for male candidates. Apothecaries, however, who receive female pupils will not be allowed to take male students also."

GERMAN PHARMACEUTICAL NEWS.

(From our Berlin Correspondent.)

ANOTHER HYPNOTIC.—We must add to our already considerable list of hypnotics hydrochlorate of hyosine, reports on which are now appearing in the medical papers. The researches of Salgo, though not establishing the claim of the remedy as a hypnotic, show that it possesses considerable uniformity and certainty of action as a sedative. Both Dr. Salgo and Fischer used it in doses varying from $\frac{1}{60}$ to $\frac{1}{30}$ of a grain, in the form of a 2-per-mille hypodermic injection. It was found to be of value in several instances where other remedies had failed.

NO SLOVENLINESS.—A curious incident occurred here the other day in connection with the taking of a degree. In Germany a thesis has to be written and printed before the degree is conferred. One of these printed dissertations was refused the other day by the faculty because it was printed on a paper of too low quality. The thesis was ordered to be re-printed before the degree was granted, and orders were sent from the Government to the different Prussian Universities that in future care should be taken to insure the printing of these dissertations on at least relatively durable paper.

FLIES AND TUBERCULOSIS.—Dr. Hoffmann has read a remarkable paper in Dresden on the distribution of the tubercle bacillus by flies. He had found that these insects collected the micro-organisms from the sputum of phthical patients and discharged them again with their excreta. He had conducted some experiments which showed that in a room inhabited by patients suffering from advanced pulmonary tuberculosis four out of six flies caught were found to contain the bacillus in their intestines. In purer atmospheres not contaminated by phthical exhalations, the flies were not found to be infested with the micro-organism, which goes to show that the man with the sticky fly-paper is exercising a function of more consequence than at first sight appears.

THERAPEUTICS OF CAFFEINE.—In various numbers of the *Berl. Klinische Wochenschr.* Dr. te Gempt publishes the results of his researches on various double salts of caffeine, notably the caffeine sodium salicylate in all diseases of the lungs. He used the compound in doses of from 4 to 8 grains, never giving more than 36 grains in twenty-four hours, principally as powders or in mixture with liquorice juice. Sometimes also he administered it hypodermically, injecting 8 grains dissolved in hot water in two portions. He highly recommends the preparation in acute pneumonia, particularly when accompanied by a decrease of heart power or increase in pulse rate, also in weakness and atrophy of the heart. He found it specially efficient where a speedy action upon the disease was desired.

CAMPHORIC ACID.—In the Berlin Medical Society Dr. Reichert recently read a paper on the local application of camphoric acid in various acute and chronic diseases of the nose, mouth, and upper portions of the alimentary canal. The acid has been known for a long time, and is produced by boiling camphor with nitric acid. It occurs in colourless crystals slightly acid and bitter to taste, soluble to the extent of 0.9 per cent. in cold water, and easily soluble in alcohol and ether. For application the author employed a solution of 1 or more per cent., to which sufficient spirit is added to make it clear. For use as a gargle a solution containing from $\frac{1}{2}$ to 1 per cent. was found effective, while from 1 to 2 per cent. was dissolved for application as a spray, and 0.2 part in a hundred as a nasal douche. A mixture of 1 part of camphoric acid and 9 parts of boracic acid was employed as a powder for dusting affected surfaces. Reichert recommends the action of the remedy as a fit subject for further investigation.

GUAIACOL.—Dr. Horner, in the *Prag. Medicin. Wochen.*, adds to the literature of guaiacol, which has been introduced as a substitute for, or rather as the principal agent in, creosote, which was formerly used in tuberculosis. This paper details the conclusions of four years' experience with the remedy, and cites a number of cases in which very satisfactory and even astonishing results accrued from its

administration. Of course, like other substances introduced to combat this disease, it did not succeed in all cases. Dr. Horner gave it in the form of half-gramme pills, and the treatment commenced with the prescription of "one three times a day." After nine had been thus taken the dose was doubled, six being taken daily, and then after three days at this point a further increase to ten daily was made. This last quantity was the most given, and it was continued in one case for five months. On the whole the writer concludes that guaiacol at least achieves as much as was expected of it in the treatment of phthisis.

BRITISH PHARMACEUTICAL CONFERENCE.

A MEETING of the Executive Committee was held on Friday, June 22, at 17 Bloomsbury Square. Present—Mr. F. B. Bengel, F.I.C., President, in the chair; Messrs. Groves, Reynolds, Martindale, Martin, Gerrard, Greenish, Ransom, Dr. Thresh, honorary general secretary, and J. C. Nightingale, assistant-secretary.

The minutes of the previous meeting were read and confirmed.

Letters regretting inability to attend were read from Messrs. Cunroy, Maben, Naylor, Symes, Umney, and Williams.

Dr. Thresh reported what had been done by the sub-committee appointed to make the necessary local arrangements for the meeting at Bath. Mr. Hutton, the honorary local secretary, had rendered invaluable service, and, thanks to his energetic labours, the programme was practically complete merely requiring the sanction of the Executive. The headquarters of the Conference will be at the Grand Hotel, and the conversazione, meetings for the reading of papers, social gatherings, &c., will be held in the assembly-rooms of the hotel. The luncheons will be served in the Guildhall, which has been kindly promised by the Mayor for the occasion. At the opening meeting of the Conference the Mayor will welcome the members to Bath. Each day, at the conclusion of the meetings, parties will be conducted to the abbey, old Roman baths, and many other places of interest in the city. On Tuesday evening there will be a smoking concert, and on Thursday, as usual, an excursion. All arrangements with the railway companies, car proprietors, refreshment contractors, &c., have been made, and, as Chepstow and Tintern Abbey are the places selected to visit, there can be no doubt that the excursion will be a most pleasurable one.

The whole of the arrangements as submitted were considered most satisfactory and unanimously approved.

The MS. of the "pink" circular giving all information with reference to the local arrangements was submitted and ordered to be printed forthwith, and sent, as usual, to all the members of the Conference.

The list of proposed officers to be submitted at the Bath meeting was also agreed to.

A number of gentlemen were nominated and duly elected members of the Conference.

It was announced that the following donations had been received, and the thanks of the Committee were accorded to the respective donors. "Annual Announcement of the Ontario College of Pharmacy" 1883, and the *Nov Idæa*, numbers for February and March, 1883 (F. Stearns & Co.).

THE CONFERENCE FORMULARY.

A meeting of the Formulary Committee of the British Pharmaceutical Conference was held at 17 Bloomsbury Square, W.C., on Thursday, June 21, at 4.30 P.M. Present—Mr. Martindale, chairman; Messrs. Greenish, Groves, Martin, Reynolds, Dr. Thresh, and W. A. H. Naylor, secretary. Messrs. Abraham, Maben, and Symes notified by letter their inability to attend.

The chief business was the presentation of reports by the members upon the remedies they had severally undertaken to investigate, together with the inspection of the samples submitted in illustration of the formulæ they were prepared to recommend. After four hours' deliberation a selection of formulæ from the lists under consideration was agreed upon to be recommended for inclusion in the next issue of the B.P.C. Unofficial Formulary.

PHARMACEUTICAL NOMENCLATURE.

THE most recently published parts of the new dictionary of the English language, edited by Dr. Murray under the auspices of the Philological Society, contain, as their predecessors did, the results of a vast amount of research and learning. Skimming through the pages we come on a number of words of special interest or general use in pharmacy. The history of these words is given with much completeness, and the careful student will find a close examination of Dr. Murray's labours in regard to them very helpful to him. As we have done in respect of the former parts of the work (see this journal, March 27, 1886, May 29, 1886, and April 30, 1887), so we give now a few notes, briefly indicating the most interesting facts which this dictionary has to tell us of the history of the words more particularly appropriated by pharmacists. We note the following:—

BRAIN is found in early English in the form of "brægen," traced to the old Teutonic form of "bragnom," and possibly related to the Greek *brechnos*—forehead. In early scientific use "brain" was applied only to the anterior portion of the organ (the cerebrum), as opposed to the posterior portion (the cerebellum); but in modern times the word is used both popularly and technically for the entire organ, the Latin words being employed to distinguish the sections. The use of the word in the plural, which still prevails in referring to "the cerebral substance generally," is traced to the sixteenth century.

BRAND, which means something burned in, is only found in recent times to have been used in the sense of a trade-mark. The earliest reference given is in a law report dated 1827 (Motley v. Downman), where the sentence is quoted, "The proprietors have added the brand-mark 'margam' on each box."

BRANDY was formerly brandwine, brandywine, brandewijn (Dutch), meaning burned (*i.e.* distilled) wine. It is found in popular use as brandy as far back as 1657, but much later, down to the end of the 17th century, in Acts of Parliament and other formal documents the form "brandy-wine" is retained.

BRAY, which was the usual term in old times for pounding in a mortar, has probably the same origin (*brekan*, Teutonic) as break, and corresponds with the modern French *broyer*. Coverdale's version of the well-known passage in Proverbs (xxvii. 22) is, "Though thou shouldest bray a foolle with a pestell in a morter like otemeell, yet will not his foolishnesse go from him."

BRAZIL WOOD has a curious history. It was originally the name given to the wood of the *Cesalpinia sappan*, an East Indian tree used in dyeing. After the discovery of the New World the name was extended and gradually transferred to the similar wood of a South American species (*C. echinata*), and this gave the name to the land of Brazil; it was not, therefore, as is generally assumed, the country from which the wood was named; but it was the wood from which the country was named. It has been conjectured that the name was originally given to the wood from the French *briser* to break, *brésilier*, to crumble, the wood probably arriving in a broken state; from the Spanish *brasa*, glowing coal (from its colour); or from the Arabic *bars* becoming *bars*, saffron. It was known in Italian as *carzino*. Inferior woods from South America of the same species are known as Braziletto.

BREAKSTONE is the name given by herbalists to the saxifrage, being a literal translation of the term.

BRIMSTONE is a corruption for brin-stone, or bern-stone, from the root *brennen*, to burn. It has appeared in many forms in old English writers. In Wyclif's Bible it appears as bren-stoon, brynston, brimston, brymston, brumston, and brynston.

BROKER is an old English word formerly spelt brocor, brokour, broggar, &c., and in old Norman-French, brocor. Its original meaning was a person who breached or tapped a cask of wine and sold it out retail, and by extension it came to mean any retail dealer, one who bought to sell again, a secondhand dealer, a middleman.

BROMINE is a name formed from the Greek *bromos*, a stink.

BRONCHIA, and its derivative words are from the Greek *branchos*, the windpipe.

BROTH is traced to a Teutonic herb-root *bru*, signifying boiling or decoction. Brew has the same origin, and bride is also traced to it, the boiling or cooking being the duty of the newly married female in the household.

BRYONY or Bryonia is the Greek name of the so-called white vine (*B. dioica*). Its juice mixed with honey and oil had a reputation as a remedy against deafness. Black bryony is a plant of another natural order called lady's seal (*Tamus communis*). It acquired its name through being also a climbing plant, somewhat resembling the white bryony.

BUCKTHORN is the literal translation of the Italian and modern Latin name of the *Rhamnus catharticus*. Lyte (1578) says:—"The Italians do call it *Spino merlo*, some call it *Spino cernino*. . . . We may well call it in English Bucke Thorne." Buck's Horn is a name given to other herbs, Swine's cress (*Scenibiera corcapopus*), Virginia sumach (*Rhus typhina*), and some plaintains.

BUNION.—The etymology of this term is obscure; Prof. Skeat regards it as from the Italian *bugnone*, "a push, a bile, a blane, a botch." This, says Dr. Murray, suits the form, but the word was so rare until recently in literary use that derivation from the Italian seems very unlikely.

BURETTE, diminutive of *buire*, a vase for liquors, was an old French word for oil or vinegar cruets. It is now used exclusively to indicate the graduated glass tube invented by Gay-Lussac.

BUSHEL has probably journeyed through old French and English words from a diminutive of the old French *boiste* (*boite*), box, becoming *boissel*, *buisel*, and so on.

CAJUPUT, also cajeput and cajaput, from the Malay *Kayu-putih*—*i.e.*, *kayu*, wood, and *putih*, white. The same meaning has been translated into the specific name of the plant "leucodendron."

CALAMINE is a corruption from the old Greek and Latin word *cadmia*, by which the zinc ore was designated. It is so termed by Pliny.

CALENDULA, the generic name of the marigold, means a little calender or little clock, or perhaps a little weather-glass. Calender is a Persian word, *galandar*, of unknown origin, and is not connected with the Greek *kalends*, the first day of the month, which was formed from *kalein*, to call or proclaim, from the practice of proclaiming the order of the days.

CALISAYA is the native South American name which has been adopted as the botanical specific name of a cinchona.

CALOMEL.—Dr. Murray gives the origin of this, on Littré's authority, as from the Greek *kalos*, fair, beautiful, or *melas*, black, because, he says, the chemist who first discovered it saw a beautiful black powder change into a white powder in the preparation. The name seems first to have belonged to Ethiop's mineral; others say the name was given by a whimsical chemist who employed a black in his laboratory, the medicine being fair, the operator black. Nothing appears as to when, where, or by whom the name was given. Littré calls it "ancien nom." [In THE CHEMIST AND DRUGGIST, January and February, 1875, two correspondents, "T. B. G." and "W. R.," argued that the supposed derivation from *kalos* and *melas* was far-fetched, and both agreed that the last syllable was more probably derived from *meli*, honey, implying the mild nature of this mercurial as compared with some other preparations of the metal.]

CALX was a term of the alchemists for a powder produced by roasting as lime is roasted, indicating the substance after the volatile parts had been driven off. It was regarded as the essential substance or "alcohol" of the crude mineral. The term was obtained from the German *kalk*, and was in old English *ceale*, which has become chalk. *Calcium* is the Latinised form of it.

CALYX is from the Greek *kalyx*, meaning the outer covering of a fruit, flower, or bud, and is not connected with the Latin *calix* (chalice) with which it has been frequently confounded.

CAMOMILE, or chamomile, is through the French *camomille*, and the Latin *chamomilla* and *chamamelon*, from the Greek *chamai-melon*, earth-apple (from *chamai*, on the ground, and *melon*, apple), so called from the apple-like scent of the blossoms.

CAMPHOR (camphire in English until about 1800) is from the medical Latin *camphora*, from the medical Greek *kaphoura*, and from the Arabic *kafur*, in Eastern languages generally *kapur* or *kappur*.

CANCER is from Latin and Greek terms signifying a crab, the disease being so called, according to Galen, because the swollen veins surrounding the affected part resemble a crab's limbs.

CANDY is traced to a Persian word *qand* sugar, the crystallised juice of the sugar cane. Hence the Arabic *qandi*, sugared.

CANNABIS is the Greek for hemp.

CANTHARIS is the Greek name for a blister-fly.

CAOUTCHOUC is from the Caribbean word *cahucha*.

CAPSICUM is a modern Latinised term, the origin of which is uncertain. Linnaeus explained it from the Greek *kaptein*, to bite (rather "to gulp down," says Dr. Murray); but it is generally referred to *capsa*, case, as if named from the pods. In either case the formation is etymologically irregular.

CAPSULE is also a diminutive of *capsa*.

CARAWAY is found in Arabic as *al-karawiya*.

CARBOLIC is a combination of carbon with "ol," the ending of alcohol, benzol, &c.

CARBON, a name invented by Lavoisier from the Latin *carbo*, coal.

CARBOY is a corruption of the Persian *qarabah*, a large flagon for wine, rose-water, &c. It was called "corabah" in English at one time. *Carafe* may have had the same origin, but is more likely derived from the Arabic *gharafa*, to draw water, or a cognate word. In Spanish and Portuguese it is called *garrafa*.

CARBUNCLE is from the Latin *carbunculus*, diminutive of *carbo*, a small coal.

CARDAMOM is from the Greek *kardamon*, cress, and *amomum*, the generic name.

CARMINATIVE.—The original idea of this word is to card or tease wool (Latin, *carminare*). It got into medicine from the notion that carminatives were remedies which combed out the gross humours from which wind arises, like combing out the knots in wool.

CARMINE is from the medical Latin *carminis*, contracted from *carmesinus*, crimson, formed from the Spanish *carmesi*, itself a rendering of the Arabic *qirmazi*, crimson, from *kermes*, *al-kermes*, the cochineal insect.

CAROTID is from the Greek *karoun*, to stupefy, because compression of the arteries to which the term is applied is said to produce carus, or stupor.

CARRAGHEEN is the name of a place in Waterford, Ireland, where the sea-weed *Chondrus crispus* is found abundantly.

CASCARILLA, diminutive of the Spanish *cascara*, rind or bark.

CASH has two origins. One is traced from the Latin *capsa*, a case, through the French *casse*: this word is generally the banking and accountant's term. Cash signifying small money, however, comes from the Tamil *kasu*, in Sanscrit, *harsha*, and used in many Indian dialects as representing small coins.

CASHEW (the *Anacardium occidentale*) is an Anglicised form of the French *acajou*, from the Brazilian *acajaba*.

CASSIA is derived through the Greek *kasia*, which is a rendering of the Hebrew *qtsiyah*, which means something stripped off, bark.

A PATENT has been taken out in Germany for a mixture to remove old varnish from any surface. The mixture is composed of 5 parts of 36-per-cent. silicate of potash, 1 part of 40-per-cent. soda lye, and 1 part of sal ammoniac.

Trade Notes.

THE NEW BREAST-EXHAUSTER, which we described and illustrated in our issue of June 16, has not been long in finding favour with the trade. Acting on our suggestion then made, Messrs. Raimes & Co., of York, have with commendable smartness manufactured and placed the double-valved exhauster on the market, and they tell us they "find that chemists order them freely." The exhauster which we have received is well made in white flint glass; the tubes are of black indiarubber, with black teat for the baby, and a nice glass mouthpiece for the mother. Each one is packed in a cardboard box suitably labelled.

MR. QUELSH, of 19 Ludgate Hill, E.C., is introducing to the drug trade at present on behalf of Mr. Henry Tetlow, of Philadelphia, the swan-down and gossamer face powders manufactured by the latter. These powders are of superior quality, and in addition to being marked at popular prices the manufacturer presents a beautifully enamelled puff-box to every purchaser of the gossamer, and each package of the swan-down powder contains a fair sized sample bottle of perfume. These presents are offered for facilitating the introduction of the face powders, the manufacturer relying on the quality of the article for future sales.

HAYDON'S CHEMISTS DEFENCE AGENCY.—An advertisement appearing in this issue of THE CHEMIST AND DRUGGIST reminds us that the first year of this useful institution is just about completed. The year has not given Mr. Haydon many opportunities of public demonstration of the value of his agency, but on many occasions we have met Mr. Haydon actively engaged in some efforts or enquiries on behalf of his clients in matters which have not come to the surface. Mr. H. Glaisyer, LL.B., will continue to act as legal adviser to the agency, and Mr. Haydon now invites the adhesion of new members.

SULPHONAL TABLOIDS.—We have received from Messrs. Burroughs, Wellcome & Co. a sample of sulphonal-Riedel manufactured into tabloids by them. As we recently pointed out, sulphonal is unsuitable for administration in pill form owing to the amount of excipient required increasing the bulk of the dose to such an extent that half a dozen 5-grain size pills must be swallowed as one dose of about 20 grains. As the sulphonal tabloids have nothing added to them, and the bulk is considerably diminished by the pressure necessary in forming them, the objection referred to does not apply, and the tabloids are likely to become a favourite method for the administration of sulphonal. Within the past ten days reports which have been published show that the new hypnotic bears out all that was at first said of it. A dose of 15 grains induces a calm and refreshing sleep, lasting for from four to six hours.

ROBERTSON'S FLEXIBLE CAPSULES.—The desire on the part of patients for tasteless medicine has compelled pharmacists to devise many methods for concealing the taste of those remedies whose activity disappears with the removal of the taste natural to them. Of these methods, that of capsuling is one which hitherto has been confined in a great measure to remedies, such as copaiba, which are used for specific purposes; but there is now a growing tendency to administer the more common nauseous fluid medicines in capsules. From Messrs. James Robertson & Co., of Edinburgh, we have received samples of various medicaments, which they have so prepared and capsuled in well-formed capsules of flexible gelatine. The firm have six standard sizes of capsules, ranging from 5 to 90 minims, each having its own designating number for the convenience of prescribers. Several of the combinations represented are very useful, such as the cascara sagrada extract, plain and with other medicaments and eclectic remedies, each 10-minim capsule representing 30 minims of the official liquid extract. Another form is represented by the ferruginous capsule, devised by Mr. Thomas Thompson as a substitute for Bland's pills. These contain ferrous sulphate and an alkaline carbonate in chemical proportions mixed with a hydrocarbon, whereby mutual decomposition only takes place when the capsule and its contents are dissolved in the stomach. This theory appears to have been amply proved in practice, and it is certain that the combination is one which perfectly prevents oxidation of the iron.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds for objection to the registration of any of the following marks may, within two months of the date of this journal, give notice in duplicate at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." The address of the Patent Office is Southampton Buildings, London, W.O.

From the "Trade Marks Journal," June 27, 1888.

- "BROMO-PHOSPH., OR BRAIN FOOD," and other wording, on label; "Bromo-Phosph.," and signature; for a medicinal preparation. By H. Atkinson (trading as The Bromo-Phosph. Company), Heath Villa, Reading. 68,149-50.
- "FLOWERS OF SULPHUR," and other wording and designation of the depositors, on a round label; for flowers of sulphur. By J. Chambers (trading as James E. Chambers & Co.), 23 Birch Lane, E.C. 68,129.
- "DERMATOS"; for common soap. By J. Adcock, 1 Raul Road, Peckham. 69,488.
- "PREMIER SAUCE," under designs; for a sauce. By H. M. Gore, 6 Smith Square, Westminster, S.W. 70,411.
- "BECKETT'S SYRUP OF ORANGE AND QUININE," on label; for a non-alcoholic, non-medicinal, and non-aërated beverage. By W. Beckett, Heywood, Manchester. 71,051.
- "OCEANINE," and a series of seven oblong labels; for a remedy against sea-sickness. By E. Ron fils, aîné, Grenoble, France. 71,252.
- "CUREM," upon signature; for a preparation for removing corns. By Luke Pickles, Market Place, Workington. 72,448.
- Representation of a palace; for baking powder. By Vaux Brothers, Pontefract. 72,976.
- "MIGRAINE," for a medicine for the cure of headache. By S. Keith, 69 South Church Street, Edinburgh. 73,257.
- "BUNTER'S NERVINE"; for a remedy for toothache. By Alfred Wilson, 422 Clapham Road, S.W. 73,414.
- "OMER'S OPHELIE," and other wording, on label; for a medicine. By Elizabeth and Ernest Copping (trading as Omer & Co.), 4 Eversholt Street, Regent's Park, N.W. 73,452.
- "LIQUID-LIGHTNING INK ERASER," and other wording; for an ink-extractor. By W. Herbert Milnes, 333 Oxford Street, W. 73,573.
- "MALTO-PEPTINE," and figure of rod of Esculapius; for malto-peptide. By M. P. Hatschek, 48 St. George's Road, S.W. 73,638.
- "JANOS," and signature; for chemical substances (Class 3). By A. Saxlehner, Budapest. 73,880.
- "H₂O," and "Pure Table Water," on oval label; for table-water. By Maignon's Filtre Rapide and Anti-calcaire Company, Limited, 32 St. Mary-at-Hill, E.C. 73,889.
- "PATON'S TONIC SALTS" over heraldic design; for medicinal preparations. By J. C. Paton & Son, 5 Chatham Street, Piccadilly, Manchester. 74,065.
- "KIRKHERB"; for whooping and other cough mixture. By George Kirk, 44 Dalryell Road, Stockwell, S.W. 74,149.
- "BRIN'S PURE OXYGEN WATER," and other wording on label; for an aërated water. By Brin's Oxygen Company (Limited), Connaught Mansions, Victoria Street, Westminster, S.W. 74,189.
- "HENRY'S CALCINED MAGNESIA"; for calcined magnesia. By T. and W. Henry, 11 East Street, Lower Mosley Street, Manchester. 74,023.
- Figure of a tumbler, with foam; for aërated waters. By T. Cook 3 Dover Road, Folkestone. 74,354.

"AMICUS HUMANI GENERIS," and signature; for aërated waters. By B. Shaw, Upperhead Row, Huddersfield. 74,558.

"RICH GINGER ALE (aromatic)," and other wording on shield-shaped label; for ginger ale. By E. P. Shaw & Co., Wakefield. 74,602.

"PLASTER, OMNICURA OINTMENT," and name of depositors on figured round label; for medicinal preparations. By P. Braggi & Co., 5 St. Aubyn's Gardens, West Brighton. 74,943.

Gazette.

PARTNERSHIPS DISSOLVED.

Arch & Brook, Cradley, Worcestershire, chemists and druggists and seedsmen.

Jones, J. A., & Co., Hauley, wholesale factors of artificial teeth, dental implements and appliances.

Joyce, S. C., & Co., Great Saint Helen's, City, oil brokers and merchants.

Masters & Pollard, Ramsgate, medical practitioners.

Oxley Bros., Liverpool, aërated water manufacturers.

THE BANKRUPTCY ACT, 1883.

RECEIVING ORDERS

Dunscombe, Matthew William, Bristol, optician and scientific instrument maker.

Leslie, Joseph Blackburn (trading as J. B. Leslie & Co.), Sheffield, chemist and druggist.

Liversedge, Frank, York, dealer in drugs.

Mitchell, Robert Stewart, Stanley, near Liverpool, and Liverpool, veterinary surgeon.

Singleton, John, Kendal, physician and surgeon.

FIRST MEETINGS AND PUBLIC EXAMINATIONS.

Darbyshire, Joseph, Kendal, veterinary surgeon—July 7, 37 Stramon Gate, Kendal; July 7, Court House, Kendal.

Dormer, Richard, Garston, near Liverpool, analytical chemist—July 4 Official Receiver's office, Liverpool; June 28, Court House, Liverpool.

Holmes, John Henry, Colwyn, Carnarvonshire, and Colwyn Bay, Denbighshire, pharmaceutical chemist and druggist—July 5, Bankruptcy office, Chester; July 12, Court House, Bangor.

Liversedge, Frank, York, dealer in drugs—July 6, Official Receiver's office, York; July 13, Guildhall, York.

Warren, Thomas, Princes Risborough, Buckinghamshire, surgeon—July 6, Railway Tavern, Princes Risborough Station; July 2, 25 Walton Street, Aylesbury.

ADJUDICATIONS.

Black, Robert, Whalton and Morpeth, trading with W. Bell, aërated water manufacturer.

Dormer, Richard, Garston, near Liverpool, analytical chemist.

Leslie, Joseph Blackburn (trading as J. B. Leslie & Co.), Sheffield, chemist and druggist.

Mitchell, Robert Stewart, Stanley, near Liverpool, and Liverpool, veterinary surgeon.

Singleton, John, Kendal, Westmoreland, physician and surgeon.

NOTICES OF DIVIDENDS.

Booth, Eustace Robert (trading as Booth & Co.), Bishopsgate Street Within, and Digby Road, Green Lanes, oil and petroleum merchant—first and final div. of 6d., any day except Saturday, Chief Official Receiver's offices, 33 Carey Street, Lincoln's Inn.

Joures, Robert, South Shields, chemist—first and final div. of 2s. 1d. June 27, Official Receiver's office, Newcastle-on-Tyne.

Wolstenholme, John Hancock, Ahergele, Denbighshire, surgeon—first and final div. of 20s., July 2, Bankruptcy office, Chester.



The following applications for Patents have been registered at the Patent Office.

- Abdominal Belts.**—8,611.—June 12, 1888.—W. Laughton. A galvanic belt for medical purposes.
- Alcohol.**—6,869.—May 8, 1888.—J. Y. Johnson (for *La Société Française de Alcools purs of Paris*). A process for purifying alcohol and obtaining aldehydes and acetones.
- Alkali.**—7,046.—May 11, 1888.—G. Borsche and F. Brünjes. Conversion of chloride of calcium into chloride of magnesium and carbonate of lime by means of oxychloride of magnesium and carbonic acid.
- Ammonium Nitrate.**—6,694, 6,695, and 6,696.—May 4, 1888.—C. N. Hake and R. H. Heenan. Manufacture of ammonium nitrate.
- Antiseptic Paper.**—7,854.—May 29, 1888.—W. P. Thompson (for *Paolo Matcovich and Antonio Grossich*, Hungary). Aseptic or antiseptic paper and the like, for use as bandages for wounds, &c.
- Beverages.**—6,279.—April 27, 1888.—B. Todd. Means of aerating draughts of beverage.—8,195.—June 5, 1888.—A. Walkyler and Dr. Lovel. "Making a herb drink composed of different herbs than any other non-alcoholic drink as a refreshment."
- Black Varnish.**—7,929.—May 30, 1888.—T. Garton and W. Barkley. Black varnish or enamel.
- Bromine, &c.**—6,812.—May 7, 1888.—T. K. Rose. Recovery of bromine, chlorine, and other chemicals employed in the extraction of gold from its ores.
- Camphor.**—6,634.—May 3, 1888.—M. J. Schreiter. Refining of camphor.
- Dental.**—6,955.—May 9, 1888.—F. H. Briggs. Stoppings of porcelain, enamel, or the like, for carious teeth.
- Disinfectants.**—6,407.—April 30, 1888.—H. H. Lake. Disinfectants. (For *C. H. Shaw*, United States).—7,177.—May 15, 1888.—W. P. Thompson (for *G. C. W. Belcher*, United States). Antiseptic or disinfecting compounds.—8,597.—June 12, 1888.—J. Hanson. Apparatus for generating sulphurous acid gas for disinfecting.
- Extracts.**—6,466.—May 1, 1888.—H. Darby. Apparatus for making extract or essence of coffee and other like extracts and infusions.
- Feeding-bottles.**—9,025.—June 20, 1888.—A. R. Stocker. Stoppers to be used with infants' feeding-bottles.
- Food Warmer.**—6,991.—May 10, 1888.—H. Dunsford. Apparatus for warming children's food, applicable also for vaporising disinfectants.
- Hæmorrhoids.**—6,943.—May 9, 1888.—C. Pearce. Preparation for the cure of piles.
- Inhalers.**—6,323.—April 28, 1888.—G. C. Wallich, S. M. Burroughs, and H. S. Wellcome. Inhalers.—6,579.—May 2, 1888.—W. H. Kerr. Inhalers for the treatment of deafness, bronchitis, &c.—6,982.—May 10, 1888.—E. Taylor and W. P. C. Everden. Pocket inhaler.
- Lanolin.**—6,671.—May 4, 1888.—A. J. Boulton (for *O. Korschelt*, Germany). Method of extracting wool oil ("Lanolin") in a mechanical way.
- Lemon-juice.**—7,162.—May 14, 1888.—F. F. Shelvey and G. Bright, trading as Shelvey & Co. A preparation of lemon-juice.
- Massage.**—7,843.—May 29, 1888.—J. Smeaton. Baths for the purpose of massage.
- Medicine.**—8,869.—June 16, 1888.—H. G. Noakes, E. I. Tucker, and D. Clark. Medicine for human use.

- Mucilage.**—8,248.—June 6, 1888.—E. Kenby. Adhesive mucilage.
- Nitric Acid.**—6,248.—April 27, 1888.—J. Dawson and R. Hirsch. Purification of nitric acid.
- Opsiometer.**—8,397.—June 8, 1888.—W. Gibbons. Testing the human eye, named "New opsiometer."
- Rheumatism.**—8,868.—June 16, 1888.—E. W. Görnberg. A preparation for the treatment of rheumatics.
- Sauce.**—7,583.—May 23, 1888.—Annie Lancaster. A new sauce and chutney condiment.
- Sanitary Towel.**—6,779.—May 7, 1888.—J. D. Mucklow. A sanitary towel or pad.
- Skin Diseases.**—7,797.—May 28, 1888.—D. McMurphy. A medicinal preparation for skin and other diseases.
- Soap.**—6,939.—May 9, 1888.—J. Thomson. Mercurial antiseptic soap.
- Surgical Dressings.**—8,032.—June 4, 1888.—U. J. Bourke and J. Milne. Surgical dressings for use on battlefields.
- Syringe.**—8,998.—June 19, 1888.—A. Tertis. A circumcision syringe.
- Thermometers.**—7,357.—May 17, 1888.—T. P. C. Crampton. Clinical thermometers.
- Tooth-brushes.**—6,664.—May 4, 1888.—W. H. Kerr. Tooth brushes.
- Trusses.**—6,576.—May 2, 1888.—J. H. Haywood. Pads for trusses and other surgical appliances.—8,048.—June 1, 1888.—E. Dodd. Pads suitable for trusses, pessaries, and other instruments.
- Vaccination Shield.**—8,600.—June 12, 1888.—W. E. Birch. A protector for the arm after vaccination.
- Vaseline.**—8,262.—June 6, 1888.—C. A. Morris. Preparations from vaseline.
- Veterinary Medicines.**—7,263.—May 16, 1888.—J. F. Brough. A medicinal tonic and vermifuge for horses, dogs, and other animals.—7,651.—May 24, 1888.—G. W. Bötze. Compound called "Antiscabin" for the treatment of scab in sheep.
- Worm Eradicator.**—7,004.—May 10, 1888.—W. S. Mackie. A preparation, entitled "Earth-worm and slug eradicator."

Specifications recently published.

(Postage, 1d. each extra)

1887.

- 5,419. T. Thompson. Admixture of ferrous sulphate and potassium carbonate, &c. 6d.
- 6,619. J. C. Martin. Imparting body to sulphate of baryta, &c. 6d.
- 6,830. C. Schedl. Purgative, &c. 4d.
- 7,117. J. Thomson. Mercurial soaps. 6d.
- 7,701. C. F. Claus and others. Soda. 6d.
- 7,761. E. A. and F. F. Jones. Preparing oxides of iron, &c. 6d.
- 7,762. F. F. Bourdil. Spraying liquids. 8d.
- 7,859. L. A. Staub. Carbonate of soda, &c. 8d.
- 7,906. R. Schneider. Hydrate of baryta. 8d.
- 8,129. L. A. Staub. Carbonate of soda. 6d.
- 8,289. W. Bramley. Obtaining chlorine or hydrochloric acid from chloride of calcium. 6d.
- 8,644. H. Bouttell. Diffusing vapours for disinfecting, &c. 8d.
- 8,922. W. N. Hartley and W. E. B. Blenkinsop. Cobalt sulphate, &c. 6d.
- 9,227. C. Wigg. Bicarbonate of soda, &c. 8d.
- 9,808. H. Eschwege. Cooling beverage. 4d.
- 10,554. J. A. Walton. Liquid blue. 4d.
- 13,248. E. G. B. Barlow. Inhaling nitrous oxide gas. 8d.
- 14,169. J. J. Hicks. Hydrometers, &c. 8d.
- 14,245. F. Thake and J. Forrest. Furniture polish. 4d.
- 16,407. A. Caller. Surgical splints. 8d.

BRITISH AND FOREIGN CONSULS' REPORTS.

FRANCE.

Corsica Mineral Waters. The exports of mineral waters from Ajaccio, in the Island of Corsica, are on the increase, 27,423 cwt. having been shipped in 1887 against only 23,935 cwt. the year before.

Practically the whole of this goes to France. The shipments consist almost entirely of the Orezza water, well known for its medicinal virtues (so the British Consul thinks). This water, which is sold for 15s. a litre in Ajaccio, should find a better market in England.

MEXICO.

Exports from Vera Cruz. Among the produce exported from the State of Vera Cruz in 1887 are named:—Vanilla, 8,000,000 pods, worth 27,133*l.*; yellow wax, 65,000 lbs., value 6,026*l.*; Castilian wax, 84,000 lbs., value 1,925*l.*; sarsaparilla, 500,000 lbs., worth 3,649*l.* (=1*3*⁴*d.* per lb.); and jalap, 26,000 lbs., worth 1,400 lbs. (=1*s.* 1*d.* per lb.?)

Vanilla. The vanilla bean grows wild in the cantons of Misantla and Papantla, and it is also cultivated there, in a primitive manner, by the Indians. It is prepared for market by the cultivators and collectors, and often before it is quite ripe. This is especially the case with the wild vanilla, one family taking it early lest another family should get it when quite ripe for harvest. The systematic and rational cultivation of the plant in the cantons just mentioned would certainly be a remunerative business. At present the quantity produced is about 8,000 mils (one mil = 1,000 pods), worth about 3*l.* to 3*l.* 10*s.* per mil.

MONTENEGRO.

Describing the incidents of a tour through those parts of the principality which are least frequented by foreigners, our consul reports:—

Climate. The climate may be looked upon as fairly healthy. Fevers of the ordinary intermittent type are of frequent occurrence in the valley of the Rieka, on the shores of the Lake of Sutari, and at Antivari, but the rest of the country is pretty free from them. Pulmonary diseases are of very common occurrence in and about Cetinje, being caused by the violent changes of temperature which are so frequent. The intense and penetrating damp, together with the more than indifferent construction of the houses, renders everyone most liable to acute rheumatism and neuralgic affections. Among children the mortality is considerable, but this may be attributed, perhaps, more to parental neglect than to climatic influences. There are hospitals at Cetinje and Podgoritza, and doctors at Antivari and Kolashin; but the people are only just beginning to avail themselves of scientific medical aid in case of sickness.

Domestic Remedies. It is said that there are Montenegrins who possess a very remarkable knowledge of medicinal herbs, but that they are most unwilling to impart their secrets to others. Little by little, also, these men are beginning to replace their simple domestic remedies by more elaborate ones, not altogether, perhaps, to the advantage of patients. Among the plants mentioned as being used for medicinal purposes may be cited the following:—*Millefolium*, *Plantago lanceolata*, and mint for wounds, the latter especially to keep off gangrene; *Althæa officinalis*, for coughs; sage, for colds; *Euphorbia*, one drop of the juice on a piece of bread as a laxative; *Sedum acre*, for jaundice. For toothache and diseases of the eye fumigations with *Hyoscyamus niger* are used, the popular idea being that the steam draws out the worms which are supposed to cause the pain.

Foreign Trade. Montenegro is not a promising country for the introduction of foreign goods. Almost everything used in the country is of the commonest description, and such trade as exists is nearly all in the hands of Trieste firms. It has been suggested to establish a depot of British goods at Antivari, where the retailers might supply their wants, but the prospects for the success of such a business seem doubtful. The language spoken in Montenegro is Serb. but Italian is also understood by some.

English, French, and German are practically unknown the country.

MOROCCO.

Orchella Export. Another small article, orchella weed, shows a largely increased value, 250*l.*, just five times the amount of 1836; but it is noticeable that, while in that year England took this, in 1887 the whole quantity seems to have gone to Spain.

Other Drugs. Among other drugs, so far as they are specially mentioned, 10,454*l.* of beeswax were exported, chiefly from Mogadore, against 21,587*l.* in 1886; 14,520*l.* of brown gum, 14,910*l.* gum sandarac, and quantities of fennugreek seed, and cumin.

Cochineal. In the neighbourhood of Mogador the cochineal insect has been cultivated on the prickly pear cactus, which is much used as a hedge for small enclosures; but its production has been on a very small scale, and, with the low prices obtained by the cochineal-growers of the neighbouring Canary Islands, may be regarded rather as an interesting experiment than as a remunerative trade.

PERU.

Exports from Mollendo. The exports from Mollendo during the year 1887 include:—Bark, 10,318 qqls., value 515,900 sols.; rhatania, 153 qqls., value 3,060 sols.; and coca leaves, 3,186 qqls., value 76,484 sols. In 1886 the exports of the latter article were only 705 qqls.

PORTUGAL.

The Olive Oil Industry. Early in 1887 the Portuguese Government appointed a Royal Commission to investigate and report upon the agricultural condition of the country. In their report the Commissioners assert with regard to olive oil that the golden days of the cultivation of the olive tree have passed away for ever. They estimate the depreciation during the last twenty-five years in the value of an olive yard, not profitably susceptible of other culture, at 50 per cent., which is also the exact percentage of the depreciation for the same period in the value of the oil. This result has arisen partly from exhaustion of the trees due to age, or the ravages of parasitical insects and fungi, and partly to the competition of Spanish oil. The Commissioners recommend as palliatives to this evil certain precautions on the frontier to prevent Spanish oil from coming into the market under the guise of (the presumably superior) Portuguese oil, and the engagement by the Government of a limited number of Italian oil-makers, who would teach the Italian processes at various Portuguese centres of production, since, though great improvements have of late years been introduced by some enlightened growers into the manufacture of Portuguese oil, it has never yet reached the degree of excellence attained by French and Italian oils.

SPAIN.

Trade at Barcelona. An industrial crisis prevailed throughout the year 1887, and plunged various parts of the province of Catalonia into profound misery and discontent, and the district of Barcelona suffered severely, factories having been either closed altogether or only partially worked with a reduced number of hands.

Strikes have frequently occurred during the year, all conducted, however, in a pacific manner, except in very few instances, where the police had to be called out to preserve order. The general depression, producers complain, was intensified through the reduction of import duties on British goods, though this importation has not been conspicuous in 1887, nor has it come up to what was expected; but the real causes of the depression were—the failure in harvests, the excess of taxation on property and produce, and the increased tariff of the carriage on railways.

UNITED STATES.

Quick-silver. The exports of quicksilver from San Francisco in 1879 amounted to 9,545 bottles, worth 79,812*l.*; against 7,000 bottles, worth 46,000*l.* the year before.

Borax. Of borax 7,350,073 lbs., worth 82,466*l.*, were shipped from San Francisco last year; against 7,934,000 lbs., worth 80,000*l.*, the year previous.

Medical Gleanings.

LISTERINE.

A COMPOUND has recently been introduced under this name as a surgical dressing, and has attained considerable popularity in America. According to *Fortschritt* the following formula gives a preparation closely resembling it:—

Benzoic acid.. .. .	8 gms.
Borax.. .. .	8 "
Boric acid	16 "
Thymol	2·4 "
Eucalyptol	10 drops
Oil of wintergreen.. .. .	10 "
Oil of peppermint	6 "
Oil of thyme	2 "
Rectified spirit	180 gms.
Water, to make	1,000 gms.

A NEW FORM OF SUPPOSITORY.

THE cut is intended to represent on improved model for rectal suppositories, designed by Samuel G. Dixon, M.D., of Philadelphia, Pa. Its shape serves to lessen the unpleasantness and inconvenience of ordinary rectal medication and alimantation. The modification consists principally in reversing the old model and forming a short cone-shaped piece to its base, making it into the point, leaving the long cone to serve practically as a handle until the thickest portion of the suppository (formed by the conjunction of the bases of the two cones) is past the internal sphincter muscle, when the contraction of this muscle upon the long reversed cone will be to force the entire mass farther up the rectum. Dr. Dixon gives no particulars in the *Therapeutic Gazette* as to how these suppositories should be made. There is no mould at present in the market which is suitable for them. It is evident from the shape of the suppository that the mould would require to be in four pieces, with a shallow base for the shorter cone.



MUSCALE BUTTONS.

MESSRS. PARKE, DAVIS & Co. received from Mexico a drug said to be called "Muscale Buttons" in its own country, and to be used as a narcotic, food, or relish. The plant is reputed to belong to the family of the *Cacti*, but its genus or species could not be determined. The drug was handed over to Dr. L. Lewin, of the University of Berlin, for examination, and he reports (*Therapeutic Gazette*) that through the assistance of Mr. Henning, of the Botanical Museum, Berlin, he has been able to identify the plant from which it is obtained as a species of *Anhalonium*, new to botanists, but closely resembling *Anhalonium Williamsii*, Linn., but differing from it chiefly in the peculiar felt-like form of the single bunches of hair, which in the *Anhalonium Williamsii* are of a purer white, silkier, and longer. Mr. Henning has named the species *Anhalonium Lewinii*. A chemical examination of the drug resulted in the separation of a basic substance (anhalonine) which is in the form of colourless or slightly yellow crystals, soluble in water, the solution being neutral in reaction. The base is almost insoluble in cold absolute alcohol, but dissolves when the mixture is warmed. Ether also dissolves it. The base forms salts with acids, and its solution gives precipitates with the alkaloidal reagents. A physiological examination of muscale buttons and their peculiar principle showed that their action is analogous to strychnine, tetanus being produced in frogs and other small animals, vomiting being produced in pigeons. But the investigation was not continued so far as to show the therapeutic application of the drug.

IPECACUANHA SPRAY.

THE influence of nostrums on medical treatment is well illustrated by the introduction of the ipecacuanha spray, in consequence of the success of a nostrum for chronic bronchitis and other diseases of the throat and respiratory

organs. This success drew the attention of medical men, and amongst them Dr. William Murrell, who in the *Medical Press* states that the nostrum was used in the form of a spray, and that its effects were little short of marvellous, a few inhalations affording prompt relief, both to the cough and shortness of breath. It always loosened the phlegm, and frequently gave rise to copious watery expectoration. It obviously belonged to the class of medicinal agents which we call expectorants, and a little thought showed that what the nostrum was capable of ipecacuanha wine might also do. Accordingly, the wine was tried in a number of cases at the Westminster Hospital, and Dr. Murrell reports that he has obtained most successful results from the employment of the spray in cases of chronic bronchitis and bronchial catarrh. In fibroid phthisis there is often a marked improvement, even when no constitutional treatment is adopted. A single inhalation will sometimes restore the voice in cases of hoarseness due to congestion of the vocal cords. It is a matter of little importance whether the spray be given with a handball spray apparatus or with a small steam vapouriser. In either case the spray must be warm, and the patient should not go out for some minutes after inhaling. Care should be taken to see that the spray really enters the chest, and is not stopped by the arching of the tongue against the wall of the mouth. The best results are obtained by using the spray for about ten minutes three or four times a day. In the majority of cases of winter cough relief will be obtained in ten days. The quantity of wine used as spray (generally diluted with water) varies from two drachms to an ounce per day.

SULPHUR AS A REMEDY.

MR. H. VALENTINE KNAGGS, M.R.C.S., Camden Road, N., has contributed a series of valuable papers to the *Therapeutic Gazette* on the use of sulphur in diphtheria and as a germ-destroyer in disease. Mr. Knaggs has long held the opinion that sulphur is an active antiseptic, and for six years now he has been using it, in conjunction with his father, as a remedy for diphtheria, no less than seventy-five cases having been treated by them with no other medicament than sulphur, and amongst these cases there has not been a single fatal one, Mr. Knaggs administers the sulphur as a mixture, for which the following is the formula:—

Precipitated sulphur (pure)	3iss.
Chocolate powder	3j.
Cinnamon water (concentrated 1 in 40)	fl. 3j.
Glycerine, to make	3iij.

Mix the powders together in a mortar, then gradually add the glycerine, with constant trituration, and lastly the cinnamon water.

Dose:— $\frac{1}{2}$ to 1 teaspoonful to be taken every hour or oftener. The dose should vary according to the age of the patient. The mixture ought to be continued for at least five days, but at less frequent intervals after the severity of the symptoms has abated.

If kept in tightly-corked, sealed, or stoppered bottles, this preparation will keep well for a very long time. It of course requires shaking before use. The mixture is remarkably palatable, and is readily taken both by children and adults. Each drachm contains about three grains.

A very careful review of the literature of sulphur, sulphurous acid, and hyposulphites as therapeutic agents is given in the paper, and while discussing Dr. Clay's Chian turpentine treatment of cancer, Mr. Knaggs calls attention to the fact that both the mixture and pills contain sulphur. Regarding this the author gives the following interesting paragraph:—"Dr. Clay should have rather stated that his remedy was sulphur and not Chian turpentine; for it appears to me to be highly probable that the latter brings out and increases in some ill-defined manner the curative action of the former medicament, when used as a remedy for cancer, just as with the old-fashioned 'Dutch drops' (which is said to be composed of 1 part of balsam of sulphur to 5 parts of turpentine, and to be credited with detergent, stimulant, and diuretic properties) the sulphur balsam increases the remedial powers of the turpentine, or *vice versa*." We are rather apt in these enlightened days to scoff at old-fashioned remedies, but who will say that they are ineffectual?

PHENACETIN is said to be attaining much popularity as a domestic remedy for neuralgia. It is given in 12-grain doses, and, besides promptly relieving the pain, is declared to leave no unpleasant after-effects.

TRADE "SANITAS" MARK.

DISINFECTANTS

(FLUIDS, POWDER, SOAPS),
NON-POISONOUS, PLEASANT, AND BEST.

Gold Medals, Calcutta 1883-84, Paris 1885, Antwerp 1883.

KINGZETT'S BACTERICIDES

Particulars sent on application to

THE "SANITAS" COMPANY, LIMITED,
Letchford's Buildings, Bethnal Green, London.

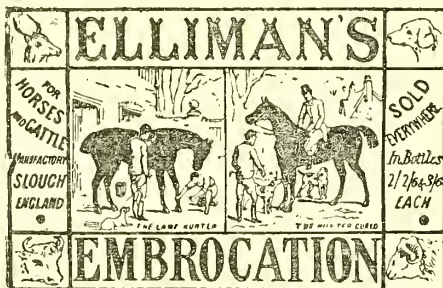
'SECURUS JUDICATOR BISTERRARUM'

Apollinaris

"THE QUEEN OF TABLE WATERS."

The filling at the Apollinaris Spring during
the year 1887 amounted to
11,894,000 Bottles.

SHOW CARDS, 24×17 or 17×12,



Free to any Address.

Go Advertiser
CATALOGUES & PRICE LISTS ILLUSTRATED
Advert. Blocks Engraved in Best Style
at Moderate Cost
W. BARKER & SON, 172, STRAND, LONDON

SILICATED CARBON FILTERS
AERATED

PATENT MOVABLE BLOCK.

See Advertisement, page 9 (bottom folio).

MUMFORD'S
PURE STARCH POWDER

In 56-lb. and 1 cwt. bags, 26s.; in 7, 14, and 28-lb. bags, 28s. per cwt. net,
bags included, delivered free in London. [1]

G. S. MUMFORD, STEAM MILLS, FARRINGDON ROAD, LONDON, E.C.

Protected by



Royal Letters Patent

SALT REGAL

In bottles hermetically sealed, 2 G. Regularly stocked by Wholesale Houses,
Usual Trade Terms. Sole Proprietors—

FRITZ & CO., Salt Regal Works, Fleet St., LIVERPOOL.



THE "VIKING"
ESSENCE OF BEEF
AND
PURE BEEF TEA
IN GLASS.

The "VIKING" Essences are guaranteed perfectly
pure. They are delicious to the palate, stimulating
to the digestion, and can be immediately assimilated.
Most beneficial in all cases of exhaustion.

Price List, Samples and Analysis from

The VIKING FOOD & ESSENCE CO., Ltd.
28 Hearn Street, London, E.C. [2]

SLACK & BROWNLOW'S
CANNING WORKS
MANCHESTER
FILTERS

FAULDING'S
(EMU BRAND)

Eucalyptus Oil
SOLE AGENTS:
Fletcher, Fletcher & Stevens
HOLLOWAY, LONDON, N.

EDITORIAL NOTES.

THE SELLER OF POISONS.

THE report published last week of the inquest on Mr. Peter Brewster, who at the age of 72 died from the effects of strychnine-poisoning, calls urgent attention to the administration of the Pharmacy Act. Mr. Brewster was the landlord of a public-house at Lewisham. Last Sunday week he complained to a young customer named Malcolm Cowan that his liver was out of order. "Oh!" said young Esculapius, "take a seidlitz powder with five drops of solution of strychnine in it." Unfortunately, Mr. Brewster was willing to take this advice, and he asked Mr. Cowan to obtain the draught for him. This gentleman called in a chemist's shop belonging to Mr. Henry, and was attended to by the proprietor's son, aged 22. The unqualified prescriber asked the unqualified dispenser to give him the alkaline part of a seidlitz powder in a 2-oz. phial, add 5 drops of liquor strychninae, and fill it up. This is most likely what was asked for, though there is some little discrepancy in the evidence as to what was asked for in the chemist's shop. Young Henry says Cowan asked for 5 grains of strychnine, and then when he had put in liq. strychnine equal to 5 grains, told him to fill up the bottle, which he did, with the same solution, making a dose of 8 grains of strychnine altogether. It did not much matter whether he gave 5 grains or 8 grains, but when

we find him so astoundingly incompetent as to label the bottle "the draught" at the request of Cowan, and not even then to remark on the deadly nature of the mixture he had made, we are justified in preferring to accept Cowan's own version of the conversation that passed, particularly as we know that Cowan had a clear knowledge of what he wanted.

As the matter is of much importance and several points arise out of it we think it right to print here a full report of young Henry's evidence at the inquest, taken from last Friday's *Lewisham Gazette*:—

Eugene Henry, having been cautioned by the coroner, said his age was 22: he was a chemist's assistant in the employ of his father, whom he had assisted in that capacity for about three years; was apprenticed to his father for three years, but his time expired about three years ago. Witness passed the preliminary examination for membership of the Royal College of Surgeons in 1881, but had not proceeded further. Knew Mr. Cowan by sight, he having been in the shop once or twice before Sunday last. On that evening Mr. Cowan came into the shop about eight o'clock with the last witness and (he believed) a child. Witness understood Mr. Cowan to ask for 5 grains of "liquor strychnine." He could not understand at first what he wanted, but concluded that he required 5 grains of strychnine in solution. Witness did not ask Mr. Cowan what he meant. He said he would take a seidlitz powder with it, and that he (witness) might as well fill a 2-oz. bottle with the contents of the blue paper dissolved in it. In accordance with this witness mixed 2 oz. of "liquor strychnine," corked the bottle up, and asked what he should put on it. Mr. Cowan said "put 'the draught,'" and he did so. Witness knew that if taken all at once the draught would be fatal, but it would not be if taken in doses, of which there were fifteen or twenty in the bottle. Had never heard of so many doses from a 2-oz. phial, but he had never made up a mixture of that kind before. He was aware of the Act of Parliament referring to the sale of poisons passed in 1868, but had only a general idea of its provisions, not a perfect one. They had the Act somewhere in the shop, but he could not say where. He did not put any other label on the bottle than that already described, and did not ask Mr. Cowan whether he was a qualified medical man. They had a register in the shop wherein was entered the sale of poisons. He made no entry of this sale, because he believed Mr. Cowan to be a medical man, and that it was not necessary, and he did not think it usual to put the word "poison" on a mixture he dispensed. Having heard the 17th section of the Act read by the coroner, the witness said he was still of the same opinion. He did not think that the law as to entering the sale in a book applied to sales to a medical man. He concluded Mr. Cowan was such by his conversation. Witness made no observation to Mr. Cowan as to the nature and danger of the draught, and did not ask him what he was going to do with it. Strychnine was, so far as he knew, sold in two forms, powder and the "liquor." The standard of strength for the latter was 1 in 100. He had studied the properties of drugs since passing his examination; was not in the habit of selling poisons without carrying out the provisions of the Act, and always registered sales of poison to ordinary customers, who had to sign their names. Did not remember the date when this was last done. Mr. Cowan said, "You may as well fill a 2-oz. bottle." He had asked first for 5 grains, which were put into the phial. Two ounces of the "liquor" would contain 8 grains. It could be measured by grains, but it was not usual. Witness had never measured it by grains before. When Mr. Cowan said, "Fill a 2-oz. bottle," witness concluded that he wanted 2 oz. of the "liquor," or 8 grains of strychnine in the bottle, and he gave him that quantity. The book for registering the sale of poisons having been sent for and produced, the witness said he personally had never made an entry in it. He was only at the Hither Green shop on Sundays, and spent the balance of his time in "various ways." He assisted his father somewhat at the other shop in Loampit Vale, and was receiving a salary of 10*l.* per annum from him. Witness occasionally attended at the Loampit Vale shop, but not to take sole charge.

The question which presents itself to everyone who reads this astounding piece of evidence is whether the legislature,

which is known to have interested itself in regard to the sale of poisons, has really left it possible for this youth to distribute death and destruction in this reckless fashion. The answer is, that the legislature has taken particular care to prevent such a proceeding. Young Henry, not being a qualified chemist and druggist, was liable, under the 15th section of the Pharmacy Act, to a penalty of five pounds for selling a scheduled poison. His employer, in this case his father, is liable to another penalty of five pounds, under the 17th section of the Act, for the non-observance of the proper precautions stipulated for when strychnine is sold. Now the first of these penalties is the more important one of the two; but it can only be sued for by the Pharmaceutical Council. Since the passing of the Act the incidence of the clause on unqualified assistants has been practically ignored; it is undoubted law, and it was declared, in the judgments of the highest Courts, in the case of the Pharmaceutical Society v. The London and Provincial Supply Association, that any person, whether he be proprietor of, or assistant, or apprentice in a business, if he be not on the register of chemists and druggists, is, under the clause we have named, personally liable to a penalty of five pounds if he sells any scheduled poison. Moreover, the fine was actually inflicted in a case tried in Edinburgh, in February, 1887. The decision on that occasion was something of a fluke, for the object of the Pharmaceutical Council then was to prevent an unqualified man who was cutting prices from carrying on business. In no case that we know of has the Pharmaceutical Council ever prosecuted the unqualified assistant of a registered chemist for selling poisons.

And why has this provision of the Pharmacy Act never been enforced? Why is it that now, twenty years after the passing of the Act, apprentices and unexamined assistants regularly sell poisons in chemists' shops, and do not know that they are infringing the law if the proprietor of the business happen to be on the register? We fear it must be replied that the main reason why this provision has been neglected is that it would not have been popular with the members of the Society or with the trade generally. But that explanation would not suffice to satisfy the Privy Council if this case should come before the authorities at Whitehall; and it must be admitted that they, on behalf of the public, have a right to insist that men who undertake the responsibility of dealing in poisons shall only permit them to be handled by persons officially certified to be competent. There can be little doubt, too, that it would be ultimately to the advantage of chemists themselves to provide such a safeguard without being forced to it by means of prosecutions.

The branch-shop question is brought prominently forward by this report, which shows the importance of such a clause as that which the House of Lords added to the Pharmacy Act Amendment Bill. It will be noticed from our Parliamentary report that Sir Henry Roscoe has taken advantage of the occurrence to endeavour to get Government assistance towards passing the Pharmacy Bill. Another consideration suggested by Henry's evidence is one we have several times urged, namely, that every apprentice should be taught the legal as well as the technical requirements of the business he proposes to follow. This Eugene Henry had served a three-years apprenticeship, and "was aware of the Act of Parliament referring to the sale of poisons, but had only a general idea of its provisions, not a perfect one. They had the Act somewhere in the shop, but he could not say where." This is a state of things which ought not to be allowed to continue; and it is quite a question whether an exact knowledge of the provisions of the Pharmacy Acts ought not to be made a subject of the qualifying examination.

BRITISH EXPORTS TO FRANCE.

AN abstract, compiled from the French official returns, has been recently issued setting forth the volume and value of British imports into France during the years 1880, 1881, and 1886, together with the amount paid into the French exchequer for customs duties upon these goods, and the proportion of the duties to the value of the merchandise imported. The return, therefore, gives a very fair idea of the extent to which our export trade has been influenced by the frequent alterations in the French tariff (generally in the direction of protection) which have taken place since 1880. One hundred and seven different classes of merchandise are described in the report, and of these only eleven are now exempt from customs duties, while in 1881 twelve, and in 1880 fourteen classes were free. Since 1880, moreover, the percentage of duties has augmented in thirty-nine different classes, while it has fallen in twenty-six classes. The proportion of duties levied in France on British imports ranges from 0.1 per cent. on wool to 136.6 per cent. on certain varieties of sugar. Exotic products, or at any rate such as are not produced in France on a sufficiently large scale to fill the requirements of native industry, are let off very lightly; thus wool, manures, and building materials only pay an average duty of one-thousandth part of their value, silk pays $\frac{1}{2}$ per cent., raw cotton, ivory, and tortoiseshell $\frac{1}{2}$ per cent. This shows that the French, after all, have not yet carried the art of protecting native industry to its logical conclusion, for in that case they ought to have acclimatised the elephant in, say, Auvergne, and the tortoise in the Landes, and placed prohibitive duties on ivory and tortoise shell for the benefit of local breeders. Among the most heavily taxed articles are tea, 82.4 per cent.; cocoa, 61.6 per cent.; sugar, "*vergeoise*," 136.6 per cent.; and coffee, 106.3 per cent. But if these articles are brought directly from the producing countries to France by French vessels a considerable abatement is allowed, and thus it has been brought about that in 1886 we exported to France from this country only 2,176,568 kilos. coffee, and 312,099 kilos. cocoa, against 4,347,694 and 600,333 kilos. respectively in 1880. This game, however, cannot always be played with success, as the tea exports show. In 1880 we sent to France 131,219 kilos. of that product, upon which a duty averaging $51\frac{1}{2}$ per cent. was paid. In 1881 our shipments advanced to 142,854 kilos., and in 1886, although the duty had been raised in the meantime to an average of $82\frac{2}{5}$ per cent., we exported 183,739 kilos. This proves in the first place that London has acquired so strong a position as the world's tea market that not all the jeremiads of French colonists or the differential duty tinkering of the French legislature can prevent us from supplying France with tea, while, secondly, it supports the view that the dictates of fashion override economic schemes, and that, in obedience to the new fashion of "*fivoclocquer à cinq heures*," Frenchmen (and women) will have their tea whatever the duty they may have to pay on it. Horses pay duty in France, and in 1886 2,685f. were levied on the 966 animals imported from Great Britain. But the sum exacted is a trifling one, and it has been still further reduced since 1880, possibly on account of bellicose eventualities. Beer and whisky are heavily taxed also, notwithstanding which the imports of the former beverage are increasing in value. However inexplicable it may seem, 1,193,568 litres of wine were imported into France from Great Britain in 1886, representing a value of 1,408,226f. The import duties on British coal have been raised from an average of 6.7 per cent. in 1880 to 9.2 per cent. in 1886, yet French consumers have been compelled to buy from us 150,000 tons more in the latter than in the former year. The mania for aping English dress, which

has seized upon France during the last two or three years' and finds occupations for "*les outfitters Anglais*," "*the gentlemen outfitters*," and other pseudo-British concerns whose huge perambulating advertisements disfigure the Parisian thoroughfares, has resulted in a substantial gain in the imports of British ready-made wearing apparel and under-clothing, of which the French bought 1,053,583f. worth in 1881, and 3,061,890f. worth in 1886. The British export trade in drugs and chemicals to France does not appear to be very flourishing just now, for in nearly every branch for which figures are given there is a considerable falling off, although the average of the duties has been lowered in several instances. Of chemical products our exports in 1886 were valued at 14,433,114f., with an average duty-tariff of 7 per cent.; gums, 1,069,737f., average duty 13 per cent.; prepared spices, 217,641f., duty 6 per cent.; volatile oils, 1,053,058f., duty 5.1 per cent.; patent medicines, 81,326f., duty 13.1 per cent.; perfumery, 459,604f., duty 4 per cent.; bismuth, 434,520f., duty 0.1 per cent.; and antimony, 390,302f., duty 6.7 per cent. As regards these items no separate statistics were in existence in 1880, and it is therefore impossible to say whether the imports are growing or not. But a number of other important pharmaceutical articles were separately classified both in 1880 and in 1886, and the total value of these is shown to have fallen from eighteen million in the former to ten and a half million francs in the latter year. In 1880 we sent to France, in round figures, of drugs 3,925,000f. worth, duty 1.1 per cent.; exotic resins, 1,128,000f., duty 3.8 per cent.; quicksilver, 680,000f., free; fixed oils, 5,580,000f., duty 7 per cent.; indigo, 3,415,000f., duty 1.8 per cent.; oil seeds, 128,000f., duty 2.1 per cent.; colours, 565,000f., duty 8.7 per cent.; coal tar dyes, 460,000f., free; sponges, 1,442,000f., duty 3.6 per cent. In 1886 the figures were, drugs, 1,523,000f., 1.8 per cent.; exotic resins, 1,492,000f., 1.7 per cent.; quicksilver, 781,000f., free; fixed oils, 1,411,000f., 8.7 per cent.; indigo, 2,632,000f., 1.7 per cent.; oil seeds, 59,000f., 2 per cent.; colours, 1,354,000f., 13.2 per cent.; coal tar dyes, 628,000f., 8.6 per cent.; sponges, 679,000f., 2.3 per cent. The total value of British exports to France of pharmaceutical and allied articles is still close upon 29,000,000f. yearly, a trade certainly worth an effort to preserve, and which will undoubtedly expand afresh whenever France again commences to lower her customs-tariff.

THE COMPANIES BILL.

A BILL has been introduced into the House of Lords by the Lord Chancellor, and was read a second time on Thursday, which has for its object the prevention of the formation of fraudulent companies under the Acts granting the principle of limited liability to associations of individuals. The principle of limited liability, as applied to commercial enterprises, has become so popular within the last twenty years, and seems destined to be woven much more largely into the business affairs of this country in the near future, that it is of vital importance to protect it as far as possible from abuse. The Bill proposed by the Government, cautiously drawn as it evidently has been, and excellent as it is in many points, will probably be found to go farther than is politic in the way of controlling the speculative tendencies of mankind. Such evils as have been found to be associated with limited companies are all traceable to the general preference of 6 to 3 per cent.; the only thing the Government ought to do is to provide that an unfair advantage shall not be taken of this rather natural tendency.

The most important proposal in the Lord Chancellor's Bill

is one providing for an initiatory stage of a new company to be called "provisional registration," this term to be applied to the company while in that stage in all documents which may be issued by or on behalf of the company. Provisional registration is to be in force for three months, unless the provisions for complete registration are previously complied with. During this time the subscribers to the memorandum of association are to be the directors of the company, and are to have power to make the necessary provisional arrangements for carrying on the business of the company. Complete registration is not to be granted unless at least a fourth of the shares have been subscribed for, and at least a tenth of the nominal amount so subscribed has been paid in cash; it is also required to be satisfactorily shown that the total number of shares held by the directors is not less than a fifth of the total number applied for; and that each director holds not less than ten shares. Any prospectus inviting subscription to the shares or debentures of the company is to disclose truly (1) the property acquired or to be acquired by the company; (2) the consideration for this property; (3) the mode in which that consideration or any part of it has been applied or is to be; and (4) any arrangement by which any promoter of the company or any person on behalf of a promoter or by his aid or connivance derives any benefit from the payment of any purchase or other money payable by the company, or from the issue of any shares or debentures. Should default be made in the performance of the duty thus imposed, the defaulter is to be liable to make compensation for any loss or damage sustained by reason of it. And if the default is knowingly and wilfully made, he is to be guilty of a misdemeanour. The accounts of all companies registered after the passing of the Bill are to be audited once a year by some person not a director, and a balance sheet in a form sanctioned by the Board of Trade is to be drawn up and submitted to every member at least seven days before the annual meeting of the company.

These are the principal provisions of the Bill and they indicate its character. That they can or will interfere with the formation of companies to carry on the business of chemists and druggists, as has been imagined in some quarters, is a pure delusion; and the hope of getting "company pharmacy" demolished by a side-wind of this kind is a vain one. There are no provisions in the Bill which it would not be perfectly easy for chemist and druggist companies to comply with, and we fail to see the honour of declining a fair-and-square fight with these corporations, and yet desiring to compass their destruction by some clauses in a Bill drawn up with quite a different intention.

VEGETABLE PRODUCTS IN AUSTRALASIA.

THE effect of low prices is felt universally. While we are grumbling at home about "cutting" prices and forgetting that the sack of flour was never so cheap as it is now, our fellow countrymen in the antipodes are striving to solve the financial difficulty which is resulting through the diminished and still diminishing price of wheat. Farming unquestionably is at a low ebb in this country, and it is not much better—indeed, with over-production and higher wages it is even worse—in Greater Britain. Can Australia grow profitably anything but wheat and wool? These are the staple articles, those upon which much of the wealth of the colonies depends, and it has become a matter of urgent public importance to the colonists that something definite should be done for the more profitable tillage of the fertile soil with

which Nature has endowed them. There was, therefore appointed some time ago a Royal Commission on vegetable products to investigate the matter. This commission held fifty six meetings in Melbourne, besides visiting South Australia and had before them all sorts and conditions of men who were able to give advice regarding the cultivation of the soil and its products.

One of the main objects of the commission was to indicate to farmers how to use their lands to greater advantage in the cultivation of products now imported. Customs returns show that vegetable and animal products capable of being grown or manufactured in Australasia are imported into Victoria to the value of about six millions sterling per annum, and into the other Australian colonies to the value of about thirteen millions per annum. These imports include many drugs and allied products, which are shown by the official returns to amount to the following sums annually:—

Materials	Victoria	All the Colonies
Oils, vegetable	£ 96,164	£ 287,814
Tea	668,472	1,668,517
Tobacco, including cigars and manufactured and unmanufactured tobacco	282,061	745,446
Mustard	19,073	65,570
Opium	41,651	142,570
Perfumes and essential oils	13,549	22,664
Starch	16,136	61,732
Resin	7,099	12,847
Limejuice	2,585	10,460
Dyes	23,667	31,238
Arrowroot	998	7,895
Gum	4,992	16,732
Liquorice	3,455	3,824
Blue	2,597	25,668
Canary seed	1,392	3,780
Chicory	355	6,443
Gelatine	1,697	1,697
Glue	2,883	9,487
Honey and beeswax	286	2,109

Of the chief items in this list there can be no doubt that oil, tea, tobacco, and opium-yielding plants can be grown in Australasia with but little trouble. In South Australia, for example, the olive has been successfully cultivated since 1851, and the samples of oil exhibited at the Colonial and Indian Exhibition were excellent of their kind. This is an industry which might with advantage be greatly extended, more especially as the manufacture of the oil is not so largely dependent upon manual labour as some other manufactures of vegetable products. Moreover, the market for pure olive oil is seldom overstocked, and if we were to judge alone from the prevalence and persistence of adulteration in this article, a pure Australian oil would be remunerative. The report by Dr. Trimen, which we recently published, contained a reference to the cultivation of tea in Australasia. There is little doubt that the climate is suitable for this plant, and the consumption of tea per head of the population is nowhere in the world so large as it is in Australasia; but there is one powerful deterrent to the extension of tea-planting in the colonies, and that is the cost of labour. Labour there costs as many shillings as pence are paid for it in China, India, and Ceylon; and these countries could, in spite of heavy duties, place tea on the Australian market at a lower price than it could be produced there. For the same reason the cultivation of the opium poppy has never become general. Mr. Joseph Bosisto has produced excellent opium on his estate, but he makes no secret of the fact that although there is an import duty of 1*l.* per pound on the drug, it is questionable if opium production could be made to pay in Australia. Cheaper labour the colonists can get if they like but they strongly object to the introduction of it in the shape of John Chinaman, and he is really the only coolie who could exist in the colonies. Tobacco is already grown in

Australia, but if we may judge from the price which it fetches as compared with the imported article, viz. about one-half, it cannot be of high quality. Some attention to the cultivation of the herb and the harvesting of the leaf should, however, improve matters in this respect. Fairly good tobacco has recently been grown in England under proper scientific conditions; these conditions might be observed in the colonies, and, as they have the advantage of England in climate, the result there ought to be at least equal. In regard to these matters we find in the fifth report of the commission that a bonus for oil and opium production is suggested, and for tobacco-growing it is urged that capable experts should be obtained to instruct both growers and manufacturers. The licence-fee of 150*l.* for small factories is recommended to be reduced, and the whole question of duty and excise should be carefully reconsidered.

The colonies, it is well known, yield some wattle barks rich in tannin, which are exported to Europe in large quantities. On the strength of evidence given before them, the commission recommend owners of poor lands to try wattle-growing as likely to be remunerative where other crops fail. The supply of wattle bark is failing, and the price has doubled within the last few years. The cultivation of the "Canaigre root," which has grown well at Dookie, and contains from 26 to 40 per cent. of tannin, is also strongly recommended; and the Council of Agricultural Education hope to be able shortly to distribute roots of the plant amongst the farmers.

Mr. Warrick has recently spoken of the cultivation of perfume plants in Australia, and he is of opinion that it would be likely to turn out successful. We learn from the report that the growth of perfume plants and the manufacture of essential oils and perfumes is successfully carried on at Mitcham, near Melbourne, and reference is made to the opinion of Mr. A. Piesse, whose experience in this line is sufficiently indicated by his name, and the fact that he is a son of the author of the "Art of Perfumery." Mr. Piesse gave evidence before the commission, and stated that "Victoria is particularly well suited for the production of perfumes." Apart from the native odorous plants, whose number is legion, the cultivation of the well-established favourites not indigenous to the country would be most remunerative.

Closely allied to this is the cultivation of fruit. Australia produces more of the succulent fruits than she knows well what to do with, so that it is not surprising to note that the commission have suggestions to make regarding the export of the ripe fruit and manufactures from it. We should think that much of this, which at present is allowed to go to waste or sold unprofitably, might advantageously be employed for the manufacture of fruit-juices—raspberry, strawberry, and the like. The demand for these is constant, and the supply of natural juices from European fruit is but a small part of the total consumed, most of the fruit essences being of artificial production. With proper means for concentration and preservation the natural juices might be made in Australia on a paying basis. What the Australians have, in short, so successfully done in viticulture might also be done in arboriculture. In connection with this and other vegetable products, which the commission believe may be exported from the colonies, it is suggested "that action be taken with a view to the establishment of colonial markets in London, so that colonial goods would be shown to the best advantage, and the public would know where to go to secure *bona-fide* Australian goods of the best quality." This can only be done by private enterprise. "United Australian action," which is limited at most, probably means "official action," and this would result in a useless, unprofitable museum. For real results shops all over London are required, and if the capital

and enterprise for these are forthcoming, Londoners will buy readily enough if there is anything good to sell. But it is evident from the report that the metropolitan public are not the first to be educated regarding the value of Australian produce. The colonists themselves require instruction, and more especially the farmers, whose object hitherto has been to get a big farm and put into it the work and manures which are only suited for a little one. This has to be changed, and the farmers have also to be informed of what else than wheat may be grown in mother earth; therefore the commission strongly recommend the publication of a cheap edition of Baron von Mueller's work, "Select Extra-Tropical Plants for Industrial Culture and Naturalisation," which affords the fullest information as to the useful plants capable of being grown in Victoria, and specially indicating the more important and valuable of them. We trust that the commission's labours will bear good fruit, and that Australian commerce, and more especially agriculture, will be advanced by it, and will take a larger share in supplying the old country with many of the raw products for which we are at present dependent upon foreign countries.

North British Branch.

The Pharmaceutical Society has some grains of comfort afforded to it in the election of its Scottish Executive last week. While they retain the services of such of its veterans as Messrs. W. Gilmour, Storrar, Daniel Frazer, Nesbit, Kinnimont, J. B. Stephenson, and Mackenzie, who were members of the Council of the branch in the time of the late John Mackay, there are now on the executive a number of active young pharmacists of the latter-day school, as well as several men of great administrative experience, such as Messrs. Watt and Paterson. Altogether the executive is a strong one, and is related fairly well to the different districts of the country. Pleasant as it no doubt is for the Council of the Society to reflect that they have a body of so well-qualified colleagues to act with them, the more gratifying feature of the election lies in the number of persons who voted at this election. It is true that 304 voting papers were sent out on the present occasion, as compared with 305 last year; but going back to the beginning of the decade we find that in the year 1880 212 voting papers, representing the number of members and associates in business of the Society in Scotland, were sent out, 210 were issued the following year, 245 in 1882, 247 in 1883, and 272 in 1884. In 1885 there was no vote, trouble had come on the branch, and the members and associates simply met and filled the vacancies without going to the formality of a poll. By the following year matters had come to a crisis, and the Council of the branch had ceased to exist; but by 1887 the breach was healed, and in a poll taken at the beginning of the year 292 voters were on the register, the number going up to 305 six months later. It would appear, therefore, that amidst the general tendency to decline which characterises the membership of the Society as a whole, it is flourishing in Scotland to an extent which justifies the demands of the Scottish members for a representative executive elected by themselves. Had these members realised that they were four times stronger than the Irish Society we fear that the dispute which they were drawn into three years ago would have had a different ending.

* *

Phonograms. Mr. Edison's latest invention seems to be about realised. It has been already announced that his newest idea was such a perfection of his phonograph as would allow not only of the reception of the words and tones spoken into it, and the reproduction of these at any subsequent time, but also of the repetition of these by means of wax impressions, which could be sent by post, placed in another machine, and ground out with all the emphasis, and in the same pitch and style, as were given to the original message. An enthusiastic friend of Mr. Edison's, a Mr. G. E. Gouraud, of Little Menlo, Beulah Hill, Upper Norwood, writes to the papers saying that on Tuesday last he received from Mr. Edison his perfected phonograph, and that on working it he and his family enjoyed the unprecedented and

astounding experience of listening to Mr. Edison's own familiar and unmistakeable tones here in England—more than 3,000 miles from the place where he had spoken, and exactly ten days after, the voice having been meanwhile voyaged across the Atlantic Ocean. In several long phonogrammic communications (no word of which had to be repeated in order to be clearly and easily understood by every person present, including a child of seven years old) Mr. Edison mentions that he will send to Mr. Gouraud phonograms by every mail leaving New York, and requests him to correspond with him exclusively through the medium of the phonograph, humorously remarking in this connection upon the advantages he will himself derive from the substitution of phonograms for a style of writing not always too legible. Mr. Gouraud says he has also received phonograms from other mutual friends, whose voices he readily recognises, as well as numerous musical records of great interest and beauty; pianoforte, cornet, and other instruments, solos, duets, &c., many of which, Mr. Edison says, have been frequently repeated, some several hundred times. The new phonograph is thus described by a recent reporter:—The "talking machine" of a dozen years ago has disappeared, but the principle remains and is now in the form of a practical commercial invention as well as a pleasing toy. There is a motor-box about 11 in. square, and the armature in it is only a horizontal ring or wheel of metal, with 10 pole pieces at regular intervals on the rim. The "cat power" battery is in a separate case underneath. The phonograph is a separate arrangement, attached to the motor-box by two screws. There is a small shaft 4 in. long, with 100 threads to the inch, which feeds what looks like a pair of spectacles with a receiver and transmitter in one ring. Then there is a recorder in the form of a steel knife fastened to the diaphragm. The receiver is a delicate metal needle, which operates on a phonograph blank of white wax. This blank is hollow and tapers inside so as to bind by friction in hot or cold weather on a metal drum. A second shaft has a coarse reverse thread, and is only used where repetition is desired. On the surface of the little wax blank, which looks like an ivory dice-box, can be recorded from 1,000 to 1,200 words or several musical compositions. A wax blank can be automatically pared from fifteen to twenty times for new records. When in motion the phonograph looks very much like a turning lathe.

* *

Recipe for a Medical Journal. In the last number of the *Universal Review* Dr. Edward Berdoe has an article on "the College of Physicians and the Medical Press," which shows that the pompous pretensions which do so much discredit to the medical profession among outsiders are not altogether unobserved by those inside the show. The absurdity of resolving as the college has done that it is undesirable that any of its members should contribute articles on professional subjects to journals professing to supply medical knowledge to the general public, and winking at the vigorous efforts which some medical journals make to attract the public to themselves, is well shown up. Here is the plan according to Dr. Berdoe for making up a medical journal:—Take of advertisements about anything in the heavens above, the earth beneath, or the waters under the earth, which can possibly interest a more or less imaginary invalid—seventy pages; of a pleasant discourse on embryonic life, highly interesting and instructive to our young people—two pages and a half; of downright heavy and profoundly scientific stuff, interesting to nobody but the writers—some dozen pages; of accounts of special operations, interesting only to those who are likely to have cases requiring such treatment, and therefore mere advertisements for the business carried on by the operators—half a score of pages; next, some twenty columns of coloured and pseudo-scientific paragraphs about subjects connected with our homes, our amusements, and our occupations; a little about our Queen, and a good deal about our neighbour's Kaiser; many columns about our taxes, our hard times, the climates we might enjoy, and the sort of weather which torments us; and we have a paper calculated to interest any fairly-educated reader for half a day—a journal to vie with the *Times* or the *Spectator* for the general reader, a splendid medium for bringing week after week into our homes the names, the honours, and the history of the work of the high priests of medicine and surgery in this kingdom. How they avail themselves of their oppor-

tunities, how they blow their own trumpets, how they tell of their successes and explain their failures—is it not written in the columns of the oldest medical journal? Yet they do not advertise! Nevertheless, when old Mrs. Uppercrust, who, like the rector's wife in "Middlemarch," is "much too well born not to be an amateur in medicine," and reads her *Lancet* as faithfully as she peruses her society journal, learns that her young friend's baby is seriously ill, she is at once prepared to advise a consultation with Dr. Artemis Leto, senior physician to the Hospital for Decayed Infants, because she has long been familiar with his articles on the diet of babies in the pages of her favourite medical periodical.

NEW COMPANY.

DENAERYER'S PEPTONES COMPANY (LIMITED).—Registered with a capital of 10,000*l.*, in shares of 10*l.* each. It is proposed to take over and acquire the sale and exclusive right to work the inventions for all parts of the world for the manufacture of pure peptones of meat, and all chemical combinations from peptones, especially peptonate of iron, and its official preparations, such as wines, syrups, elixirs, &c., according to the system known as Denaeyer's. The first subscribers are:—F. H. Leaders, merchant, 118 Bishopsgate Street Within, E.C.; C. Van Gael, 147 Chartsee de Haecht, Brengeller; C. Fryer, 76 Rotherfield Street, Islington, N.; W. H. M. Maclean, Kingslyn, Upper Norwood, S.E.; O. Haldar, Mill Holme, Forest Hill, S.E.; F. F. Eledin, Cresswell Lodge, Chiswick, S.W.; F. P. Seir, Woodlands, Clapham Park. The first directors are to be Alphonse Florent Denaeyer, Francois H. Leaders, and Charles van Gael. The qualification of every director to be the holding of not less than 20 shares or debentures. The directors to be paid 8 per cent. of the net profits, after 5 per cent. has been set aside as a reserve fund.

Obituary.

COLE.—On June 20, at Sheffield, from typhoid fever, Mr. Harold Cole, son of Mr. Cole, chemist, Congleton. Mr. Harold Cole had been with Mr. Newsholme, chemist, Sheffield, for the past three years, and had taken several prizes in the Sheffield School of Pharmacy.

DAVIES.—On May 9, Mr. John Richard Davies, chemist and druggist, Market Place, Holyhead. Aged 68.

FISHER.—On June 14, Mr. John Fisher, chemist and druggist, Ashton-upon-Ribble, Preston, Lancs. Aged 61.

HARCUS.—On June 14, Mr. John Marcus, chemist and druggist, late of Woodhouse, near Sheffield. Aged 45.

JENKINS.—On June 12, Mr. John Thomas Jenkins, pharmaceutical chemist, New Radford, Notts. Aged 48.

LOVETT.—On June 5, Mr. John Lovett, chemist and druggist, Gloucester. Aged 90.

ROBERTS.—On June 18, Mr. Francis Roberts, chemist and druggist, Park Street, Brighton. Aged 44.

MR. DUTTON has been appointed dispenser to the Sheffield Union.

LARGE FIRE IN NEW ZEALAND.—On the morning of May 27 a disastrous fire occurred in the premises of Messrs. Sharland & Co., wholesale chemists, Shortland Street, Auckland, which resulted in the premises being completely gutted. The damage is considerable, but the insurances are unknown. The adjoining warehouses also suffered damage.

AN Australian contemporary reports the death on April 18 of the "distinguished scientist" Sir H. E. Roscoe, F.R.S., LL.D., and duly obituarises him. We have pleasure in informing our numerous Australian subscribers that since that date Sir Henry, or a very substantial ghost much resembling him, has been busy experimenting on London sewage for the Metropolitan Board of Works, that he still finds use for the respectable fees paid him for this important work, and showed his interest in pharmacy so late as Thursday evening.

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., June 28.

THERE has been very little improvement in business since our last report, but it is thought that after the turn of the half-year, and when once stocktaking is over, things may begin to look up a little. In the chemical market some improvement is noticeable in citric acid, but tartaric still hangs fire. On the other hand quinine is rather a shade lower than firmer, morphia has altogether broken down, cocaine is a little easier, and some of the German agents are willing to accept lower prices for glycerine. The agents for the saccharin manufacturers, too, have lowered their quotations. Among heavy chemicals cream of tartar, carbolic acid, sulphate of copper, bleaching-powder, and chloride of potash are all lower. Gambier and shellac have both improved. As regards drugs, there is some slight improvement in ipecacuanha, senna, cascara sagrada, the better varieties of cardamoms, lycopodium, senega root, and some essential oils, notably star anise, geranium, and American peppermint. On the other hand there are some important drugs which are lower in value, such as rhubarb, musk, caraway seed, opium, golden seal root, curaçao aloes, cantharides, and vanilla.

CAFFEINE FROM TEA-DUST.—We have on former occasions referred to the proposal which came before the chemical section of the London Chamber of Commerce regarding the manufacture of caffeine from those qualities of tea which are unsuitable for dietetic purposes, yet contain alkaloid in such quantity that it would be profitable to work up the tea in the manufacture of alkaloid. Large quantities of this tea are so worked up in Germany, and it would be possible to retain the greater proportion of the material in this country, and to establish practically a new industry here, provided the Customs would allow the kinds of tea in question to be landed duty free. Overtures having been made in the proper quarter and the Board of Customs have expressed their willingness to meet the demands of the chemical section, provided a suitable method for denaturating the tea was submitted to them. The addition of asafoetida or lime has been recommended for this purpose, and although the Board of Customs have not yet given their decision as to which method will be adopted, matters have advanced so far that Messrs. Howards & Sons, of Stratford, and Mr. Thomas Whiffen, of Battersea, are about to commence the manufacture of caffeine from tea.

TO-DAY'S DRUG AUCTIONS partook to a great extent of the nature of a "rummage" sale, and gentlemen who buy with an eye to quantity rather than quality made the most of their opportunities. Cumin seed at 5s., gum elemi at 3s., and Curaçao aloes at 16s. per cwt. are only a few of the "unparalleled bargains." There were jaborandi leaves that might with advantage have been passed through a wringing machine, "senna" (forty bales of it) for which no higher bid was obtainable than one-thirty-second of a penny per lb., areca nuts appealing in vain for a buyer at 1s. per cwt., and, finally, 66 lbs. of scammony which was sold at 3d. per lb. Following a gentle hint, we do not hesitate to describe these lots as rubbish; but if the brokers knew them to be such, would it not have been better to decline the responsibility of selling them? And how about the consumers? And what of firms who buy honest goods at a fair trade price and are compelled to compete with this sort of thing?

THE "PREMIER BROKER" assured us once that he did not want any more newspapers, and might therefore be supposed

to entertain no particular affection towards the press. But it is the exception that proves the rule, and on this occasion that exception is made in favour of an evening contemporary which has recently commenced to shed its lustre over us. The name of the Liberal candidate for Hampstead figures prominently among the galaxy of other personages celebrated in art, science, literature, or politics, which graced the Stonecutter Street mansion on Wednesday evening.

THE new Swedish Customs tariff, by which the import duties on foreign industrial products are considerably increased, comes into force on July 1.

THREATENED FAILURE OF THE CROPS IN BRITISH INDIA.—The *Daily News* correspondent telegraphs under date of June 27 that the monsoon rains are a fortnight overdue, while great heat prevails throughout Bengal and Northern India, and the crop prospects are becoming seriously affected. The district reports which are made up to June 23 were published in the official *Calcutta Gazette* of June 27. They show that throughout Bengal the crops in the ground, especially the young rice, were withering, and must be wholly lost if rain does not come soon. Prices are rising. The cattle are suffering from want of pasturage. Water is becoming scarce, and agricultural operations are at a standstill. The outlook is very serious, and there is no sign of a change. The scientific explanation given is that the monsoon current has been deflected to Burmah and Assam, where heavy rain has been falling for ten days.

TIME-BARGAINS IN SALTPETRE.—A meeting of firms interested in the saltpetre trade was held in Hamburg on June 20, to consider a communication of the local produce clearing-house, suggesting the desirability of establishing time-bargains in saltpetre, and offering facilities for including that article among those dealt in by the concern. It was, however, decided to decline the offer.

ACID (CARBOLIC) is rather weaker than firmer, although at this season of the year the tendency is generally the other way. *Liquid acid* 95 per cent. may now be had at 1s. 5d. per gallon; *Crystals*, 1s. 5d. to 1s. 6d.; and bulk, 1s. 1d. to 1s. 4d. per lb.

ACID (CITRIC).—A rather better feeling prevails, and we do not think it would now be possible to buy under 1s. 7d. per lb., although we have not heard that that price has yet been paid. Lemon juice is also dearer in Sicily.

ACID (TARTARIC) quiet at 1s. 5½d. for *Foreign*, and 1s. 5¾d. for *English*.

ALOES.—*Cape aloes* were rather neglected at to-day's auctions; only 26 cases were offered, nearly half of which sold at 19s. 6d. for fair hard bright but very drossy, and 18s. down to 13s. for more ordinary qualities. Fine *Cape aloes* were not offered. The assortment of *Curaçao aloes* catalogued for sale was an extensive one, but of inferior quality, and sold partly at very low rates indeed; fair dark brown in gourds realised 50s. per cwt.; darker, in boxes, 42s.; and ordinary *Cape* and common *aloes* from 22s. to 25s. A parcel of 240 boxes cinders was partly sold at 16s. per cwt., partly bought in, 9s. per cwt. being refused. There was a very large assortment of new soft red *Zanzibar aloes*, which was nearly all bought in at nominal prices, ranging from 70s. to 6l. 5s., according to quality. A few cases, containing scarcely anything but water, sold at 10s. per cwt. East Indian *Socotrine*s in skins are limited at 6l. 10s. for fair quality, rather weak flavoured.

AMBERGRIS.—Good quality remains very scarce. One tin of good flavour but dark colour sold at 80s., more ordinary at 68s., and common sticky stuff at 14s. per oz. Three tins from New Zealand, dark and pale mixed, presenting the appearance of spermaceti, were bought in at 40s. and 70s. per oz. nominally.

ANISE.—A fair trade is doing in Russian anise at the low quotations which have lately been current, viz., 18s. to 20s. for

medium to good, but more or less dusty, seed. *Italian anise* is still worth 40s. to 42s., and good *Spanish* (Alicante) 50s. per cwt.

ANNATTO.—Brazilian *roll annatto*, which is very neglected, was not offered to-day, but about 36 packages *seed* from Ceylon were placed in sale, fair red selling cheaply at 1*d.* to 1½*d.* per lb.

ARECA NUTS.—Nine bags very badly sea-damaged and half rotten were included in the auctions, but no offer could be obtained, although they were catalogued "without reserve," and they had to be withdrawn.

BALSAMS.—There appears to be a rather extensive stock of *Copaiba* balsam in Hamburg, though mostly of the less desirable varieties; but holders are apparently rather firm, and not inclined to give way by any means. *Copaiba* is still rather firmly held here, and 2s. 2*d.* per lb. is asked for good Maranhão, but there do not appear to be any buyers at that figure. *Peruvian* neglected. One holder offered to-day at 4s. 1*d.* per lb., but found no purchasers. Others still buy in at 4s. 6*d.* per lb. nominally. *Tolu* dull, 1s. 3*d.* per lb. asked; perhaps somewhat less might buy.

BLEACHING-POWDER without demand, and rather lower in value. On the spot 8*l.* 10s. per ton is quoted, and 7*l.* 7s. 6*d.* to 7*l.* 10s. on the Tyne.

BUCHU remains exceptionally cheap. Six bales very yellow round leaves sold at 1*d.* to 1½*d.* per lb. Other small lots, including some long leaves, were bought in.

CALUMBA.—The catalogues to-day comprised 440 bags, mostly of ordinary quality. Only about 40 bags sold, with some difficulty, at 14s. per cwt. for rather brown and dusty root; 18s. being refused for another lot of fairly good yellow mixed.

CAMPHOR.—*Crude* remains in the same position as last week, viz., 79s. per cwt. for Japan on the spot, but we hear of further business at the price of 70s. per cwt. c.i.f., July-Aug. shipment. A parcel of 65 cases, badly sea-damaged China, newly imported, sold at 66s. per cwt., with fair competition. *Refined* unchanged.

CANTHARIDES.—*Russian* flies are somewhat pressed for sale, in anticipation of the coming crop. At to-day's auctions 4 cases, of fairly good quality, were bought in at 5s. per lb., an offer of 4s. 2*d.* being refused. Fair *China* cantharides sold cheaper, at 1s. 2*d.* per lb.; slightly mouldy, 1s. 1*d.*; broken and dust, 2*d.* per lb.

CARAWAY SEED.—The recent improvement which set in when it was rumoured that the new crop had suffered damage has not been maintained, and values are again lower, although it is still said that the coming Russian crop will be a very small one. But there are still large supplies of old caraway in stock and depressing the market. *Dutch* seed is held up to 26s. per cwt. for the best, good *Russian* 21s. to 22s. per cwt.

CARDAMOMS.—Of 109 cases offered at to-day's auctions the greater part was sold at full to slightly dearer prices for good qualities, but some medium lots sold cheaply enough. *Mangalore*, medium size, pale smooth well clipped, sold at 2s. 7*d.*; rather smaller, but good, at 2s. 2*d.* to 2s. 4*d.*; medium yellow at 2s.; small pale, 1s. 5*d.* per lb. *Ceylon Malabar*, medium pale plump, 1s. 8*d.*; brownish, 1s. 7*d.*; small palish, 1s. 2*d.* to 1s. 3*d.* per lb. *Mysore*, good medium to bold pale, 2s. 2*d.* to 2s. 4*d.*; long palish but specky and medium yellow, 1s. 9*d.*; medium to small pale, 1s. 6*d.* to 1s. 7*d.*; brownish specky and partly split to medium brownish, 1s. 3*d.* to 1s. 4*d.*; small dull split, 1s. *Tellicherry*, medium fair pale, 1s. 2*d.*; thin brown, 9*d.*; common and shell, 5*d.* to 9*d.* per lb. Ordinary mixed seed, 11*d.* to 1s. 4*d.* per lb.

CASCARA SAGRADA remains firmly held at 55s. per cwt. In New York the entire stock is held by one firm, and new bark cannot be expected before August or September.

CHAMOMILES without alteration in price or position since our last report.

CINCHONA.—The imports into France during the first five months of the year were: 1888, 311 tons; 1887, 355 tons; 1886, 415 tons; the exports: 1888, 62 tons; 1887, 54 tons; 1886, 95 tons; and the consumption: 1888, 166 tons; 1887,

248 tons; 1886, 241 tons. The Java shipments during the periods between July 1 and April 30 were as follows:—

Amsterdam lbs.	1887-8	1886-7	1885-6	1884-5	1883-4
Private	2,353,470	1,357,576	866,672	653,745	616,202
Government ..	532,687	571,320	349,209	345,978	410,275
Total	2,886,107	1,928,896	1,215,881	999,723	1,026,477
English lbs. ..	3,195,115	2,135,759	1,346,168	1,107,468	1,137,784

The following figures relate to the shipments of cinchona from Ceylon during the periods of October 1 to May 31: 1887-8, 7,671,055 lbs.; 1886-7, 9,712,194 lbs. The rail receipts at Colombo from October 1, 1887, to May 13, 1888, were 3,034 tons against 4,211 tons during the same period last season. At to-day's auctions a quantity of rusty *Guayaquil* quill, partly damaged, sold at 8*d.* to 1s. 3*d.* per lb. Thirty bales ordinary *Lima* were bought in at 3*d.* per lb.

CIVET still scarce. One horn of pretty good quality was offered to-day; from 14s. to 14s. 9*d.* was bid for it, but the owners will not let it go under 16s. 6*d.* per oz.

COCAINE is rather weaker. For German brands in bulk the agents ask 21s. per oz.

COCA LEAVES.—A parcel of 45 bales which recently arrived was offered for sale to-day. It included some fairly good palish but small and broken leaves, but only one package common dark and damaged was sold at 3*d.* per lb.

COCCULUS INDICUS.—A parcel of 100 bags good bold fruit were bought in at 9s. per cwt.

COLOCYNTH.—No good Turkish or Spanish colocynth was offered at to-day's auctions, but only a parcel of 6 cases from Bussorah. Of these three cases small whole apples in shell and very seedy sold at 3*d.* per lb., while for three cases very seedy pulp 5½*d.* per lb. is required.

COPPER (SULPHATE) easier and offering at 20*l.* per ton.

CORIANDEER SEED steady, up to 16s. per cwt. for fine quality.

CREAM OF TARTAR dull, and offering at lower values. Fine white firsts may be had at 119s. to 119s. 6*d.* per cwt., seconds at 115s. to 116s. per cwt.

CROTON SEED very low in price. Thirty-eight Robbins ordinary Bombay sold at 8s. 6*d.* per cwt. For an ordinary lot, 7s. per cwt. was offered.

CUMIN SEED.—At to-day's auctions a parcel of 41 bales fair but slightly stony seed, imported *via* Lisbon, was bought in at 50s. per cwt. Common Malta sold at 40s. per cwt. Old *Malta* seed is not in much demand, but the new crop is attracting attention. Good to fine old seed may be had at 50s. to 52s. per cwt., *East Indian* at 37s. per cwt.

DRAGON'S BLOOD appears rather scarce. Of two cases fair coloured seedy lump one sold at 7*l.*, the other was bought in at 7*l.* 10s. per cwt. Six cases rather dull finger in reed sold at 8*l.* to 8*l.* 2s. 6*d.* per cwt.; a high price, but this variety is very scarce just now. A case of common woody *Socotrine* sittings sold at 37s. 6*d.* per cwt.

ELATERIUM.—The recent improvement tempted holders to put up for auction to-day a further supply of 276 oz., but there did not seem to be any immediate demand for this, and the whole was withdrawn.

ERGOT OF RYE.—Privately more firmness has been shown, owing partly, it is said, to the improvement in the Russian Exchange, but at to-day's auctions a somewhat mixed assortment was offered and partly sold without any evidence of a better tone. For 20 cases slightly wormy *Spanish* 11*d.* per lb. was refused, one bag of another parcel selling "without reserve" at 11½*d.* Other lots were bought in, *Russian* at 1s. 3*d.*, sifted *Spanish* at 1s. 7*d.* per lb.

FENUGREEK SEED is still in rather small supply, and it is said that no fresh supplies are on the way at present. Fine *Mogadore*, 9s. per cwt.; *Egyptian*, 7s. per cwt.

GALLS.—At Tuesday's auctions 94 cases *China* were bought in at 60s. per cwt., and to-day 50 bags blue and green mixed *Turkey* at 61s., *Smyrna* at 55s. per cwt.

There are still about 25 tons of galls in stock in Smyrna, and holders would mostly be glad to sell; but there is said to be little disposition to operate, as the coming crop is generally supposed to promise a large yield, from 900 to 1,000 tons, of very good quality.

GAMBIER.—The demand continues, and further business took place at the end of last and the beginning of the present week at 24s. per cwt. for new *block*, landed weights, and since then the price has advanced to 24s. 6d. for new landed, which was paid in the middle of the week.

GAMBOGE.—Holders do not seem inclined to accept the low offers made at the auctions, for they refused 9l. 7s. 6d. for two cases dull loose ricey pipe (for which 9l. 10s. is asked) and 10l. 12s. 6d. for part of 17 cases fair, slightly run pipe of good colour, which were bought in at 11l. 5s. per cwt.

GLYCERINE.—Some of the German agents still hold at their previous quotations, but others are intimating their willingness to accept lower rates, say perhaps 65l. per ton for double distilled, s.g. 1.260.

GOLDEN SEAL ROOT.—In America the price has suddenly given way, and certain New York firms are now quoting on the basis of 1s. 3d. per lb. c.i.f.

GUM AMMONIACUM.—One case fair, slightly blocky and dark seed sold at 17s., ordinary blocky at 11s. per cwt.

GUM ARABIC.—Last week's auctions were completed on the Friday, but very little interest was shown for the parcels offered, and only a small proportion sold at 94s. to 99s. per cwt. for very good soft ambery *Amrad*; 80s. for fair *Tripoli Amrad*; and 90s. for rather ordinary and dark mixed *Aden* sorts, strongly oilbanum-scented. Ordinary to good palish *Ghatti* realised from 42s. 6d. to 57s. 6d. per cwt. Turkey gums remain very high priced, and show a tendency towards still higher values. At to-day's auctions three cases small picked grain, rather yellow in colour, sold without reserve at 14l. 10s., while 16l. was refused for a good pale lot. Another parcel of five cases pale Trieste picked sold at 15l. to 15l. 10s. per cwt.

GUM BENJAMIN.—The arrivals still continue, 86 cases having come to hand, per *Laju*, from Singapore since last week. The quantity offered to-day was too small to afford any criterion, but prices remained fairly steady; *Sumatra*, fair palish almondy seconds, at 7l. 12s. 6d. to 7l. 15s.; *Penang* seconds, about one quarter false packed, the rest fairly almondy, at 6l. 10s.; fair *Palembang* seconds, 75s. per cwt.

GUM ELEMI.—Nine bales of a black resin sold under this name without reserve at 3s. per cwt.

GUM EUPHORBUM.—Only a few unimportant lots were offered, of which one package dark damaged rubbish sold at 5s. per cwt., while fair brown drop, rather dusty, was bought in at 40s. per cwt.

GUM MASTIC.—The Smyrna market is quiet, and it is yet too early to form an opinion of the coming crop; but if the weather remains dry until the middle of August the yield will probably be a fair average one.

GUM MYRRH.—Several parcels were offered to-day, but very little inclination to purchase is shown, although prices remain unaltered. Five bales good pale *Aden* sorts sold at 95s.; 85s. was refused for dark *Bombay* ditto, and 9l. 10s. is asked for good London picked myrrh.

GUM TRAGACANTH.—It is said that the crop of tragacanth in Asia Minor will only be two-thirds of last year's, and of inferior quality—viz., rather more earthy—on account of the damage caused by rain. The total crop is estimated at about 650,000 lbs. Holders in Smyrna are firmer, fine white qualities being expected to go dearer.

HONEY.—*Chilian* honey still continues to arrive in quantity, 629 barrels having been received at Liverpool this week from Valparaiso per *John Elder*. The new crop of *Californian* honey is now commencing to arrive on the San Francisco market, and is (as usual) said not to be a large one. At to-day's auctions a fairly large quantity of *Jamaica* honey was offered and sold at 24s. to 25s. for fair brown liquid, down to 18s. for dark, and 5s. per ewt. for one cask "impregnated with paraffin." Twenty-two cases "orange

blossom" brand of nondescript honey sold to-day at 22s. 6d. per cwt. Twenty kegs fine white candied New Zealand honey were bought in at 45s. per cwt., but less would probably be taken.

INSECT FLOWERS.—There is no change in the position since last week.

IODINE quiet.—*Crude*, at 9d. per oz.; *Resublimed*, 13s. 6d. per lb.; *Iodide of potassium* 11s. per lb.

IPECACUANHA.—Nineteen bales offered to-day sold at an advance of 3d. to 4d. per lb., with good competition. Good sound brown annulated root 6s. to 6s. 1d.; slightly damaged, 5s. 9d. to 6s. 1d.; second class damaged and partly mouldy, 5s. 11d. to 6s. 1d. per lb. We hear that two further consignments are expected *via* Antwerp.

KAMALA.—Two cases, not of very good quality, were shown to-day. The price is said to be 6d. per lb.

LINSEED.—A few small lots of fine *Dutch* seed are still obtainable at 44s. per 424 lbs., but otherwise this variety is extremely scarce. *Hungarian* linseed is quoted at 42s., *Canadian* at 43s. to 44s., *Russian* at 37s., and *East Indian* at 37s. to 38s. per 416 lbs.

LYCOPodium.—For this article, of which the stock is now very much reduced, the prices have again been advanced, 1s. 6d. per lb. being the nearest quotations.

MORPHIA.—The makers have been underbidding one another, and prices early this week fell to 3s. 1½d. for large quantities of hydrochlorate, July delivery. But since then a little more has been asked, viz. 3s. 3d. to 3s. 6d., according to quantity.

MUSK.—To-day's supply was a fairly large one, and prices, in accordance with general anticipation, again showed a slight decline, viz., from 1s. to 1s. 6d. on *Tonquin* first pile, which sold as follows: Six caddies fine medium to bold pods (no small ones) well trimmed, with blue skin and underskin, and good yielding, at 80s. per oz.; one caddy ditto, but not so dry, and including some small pods at 80s. (five others are held at 79s. per oz.) Third pile, two tins of very good appearance, partly spurious, but well trimmed at 54s. 6d. to 55s. (a high price); common damp untrimmed black, 19s. 6d. to 20s. 6d. Fair dry but skinny *Yunan* pods are held at 42s. per oz. Empty *Cabardine* pods sold at 1s. 7d., and trimmings at 6d. per oz. A few packages *grain* musk were also sold, common at 27s. 6d. per oz.

MUSTARD SEED is cheap, but the demand is rather slack. *English* seed sells at 9s., and *Foreign* at 7s. per bushel. Brown mustard seed may be had at 9s. to 12s. for *English*, and 5s. to 6s. for *East Indian* (Bombay).

NUX VOMICA sold rather cheaper to-day, but the appearance of the lots offered was not particularly fine. Thirty-five bags fairly pale silky *Bombay* brought 11s. per cwt., 78 pockets dark mixed and partly damaged. *Cochin* 7s. 6d. to 8s., and 124 bags partly dark seeds from *Ceylon*; sound, 10s. 6d.; damaged, 7s. 6d. to 9s. 6d. per cwt.

OIL (CASTOR).—Good white *Italian* is held steadily at 4d. to 4½d. per lb., and mixed pale and yellow *Cocoad* at 2¾d. to 2½d. per lb.

OIL (COD LIVER).—Business has been practically at a standstill since our last report.

OIL (OLIVE).—Business in olive oil, both in London and Liverpool, is of an extremely restricted character, and what little trade is doing takes place mainly in low-priced varieties. *Mogadore* oil may be quoted at 32l. 10s. to 33l., according to quality, *Messina* at 33l. 10s., and *Spanish*, nominally, at 37l. In reports from Italy the fear is still expressed that the drought which has lately prevailed in some of the principal growing districts will damage the crop and the tendency of the Naples market therefore is rather firmer. In Sicily the crop prospects are said to be satisfactory, but prices are firm, partly on account of the improvement in the English freight quotations. As regards Spain we hear that in Seville prices have fallen 5l. per ton, which decline has prevented the importation of Italian oil into that market. The previous inflation of prices is attributed to reckless speculation there, which has now collapsed in the face of very favourable prospects for the new olive crop. In the Malaga district the growing crop

also promises a heavy yield should all go well. Prices in Spain, however, remain too high for export business to Northern markets. There is no news about the new crop in Morocco, and in that quarter there is but little oil available for export. In Tunis prices are much too high to admit of export to the United Kingdom, and rain is urgently required to save the growing crop. The prospects of the crop in the Ionian Islands and Candia are very favourable.

OILS (ESSENTIAL).—It is reported that 6s. 5d. per lb. has been paid for *Star anise* on the spot, which would show a further improvement, and it is added that holders now require 6s. 6d. per lb. *Cassie* is becoming very scarce in France. *Cassia* neglected. Holders still quote 2s. 11d. per lb. but would probably be willing to sell a shade under that figure. *Citronella* neglected at $\frac{7}{8}$ d. to $\frac{15}{16}$ d. per oz. nominally. At to-day's auctions 17 cases (of 36 bottles) Winter's brand were offered, and an offer of 1d. per oz. was solicited for these. They were bought in at 1 $\frac{1}{2}$ d. per oz. *Cinnamon* quiet and without much demand. To-day only 2 cases were shown and bought in. *Cinnamon leaf* quite neglected at 1 $\frac{1}{2}$ d. per oz. *Geranium oil*: African firm and in good request. The prospects of the French crop, which will be gathered in September and October, are very unfavourable thus far. *Lavender* very firm for French oil, and little offering. *Lemon* and *Bergamot* quiet, with a rather heavy stock and little inquiry. *Lemongrass* quiet at 1 $\frac{1}{2}$ d. for native brands. Eleven cases West Indian oil of *Limes* were bought in to-day at 2s. 10d. to 3s. 6d. *Menthol*, quiet and without much demand. At auction 17 cases and 20 tins were bought in nominally at 6s. per lb. Four cases *Patchouly* were bought in at 2s. per oz. *Peppermint*, American H.G.H., is still tending higher. It is now generally affirmed that the coming crop will be a small one, while stocks are said to be light everywhere; 12s. 6d. per lb. is quoted by some holders, others even ask 13s. per lb. Of *Spearmint* 7 cases were offered for sale to-day—5 H.G.H., which were bought in at 15s. per lb., and 2 of the D & O brand, for which 10s. per lb. was refused, and which were bought in at 14s. per lb. *Spike oil* is expected to rule at rather higher prices this year, but the crop will not be distilled until September, and nothing is therefore known for certain at present. *Thyme*.—This season's crop has scarcely been a moderate one, and there is little left from last year's distillation. Eleven 1-lb bottles *Ylang-ylang*, fair quality (A.J.S.), sold to-day without reserve at 4s. 6d. to 4s. 7d. per oz.

OILS (PERFUMERS).—Two cases olive oil (violet-scented) and two ditto (cassia-scented) were bought in to-day at 3s. 6d. per lb. No bid was made for them.

OPIUM.—Reports from Smyrna continue to speak very favourably of the crop which is now being gathered. The rain in the growing districts, though it has retarded harvesting for a few days, has not caused any damage worth mentioning to the plants, and a yield of 8,000 baskets for Asia Minor is now considered the minimum which may be expected, estimates ranging between that quantity and 12,000 baskets. Harvesting commenced in the Salonica district under favourable auspices during the second week in June. The arrivals at Smyrna up to June 15 were 40 baskets, against five at the corresponding date of 1887.

QUICKSILVER.—The week has passed quietly but steadily, the principal importers maintaining their quotation of 8l., while second-hand holders offer as low as 7l. 13s. to 7l. 14s.

QUININE.—On Friday last a rather considerable business was reported in the two German brands which, temporarily at any rate, lead the market, 25,000 cz. B. & S. bulk being said to have been sold for September delivery at 1s. 3 $\frac{1}{2}$ d. per oz., and 10,000 oz. *Brunswick* bulk, also for delivery, at the same price. During the present week further business has been done at these prices, but the B. & S. agents are not quoting now. We have heard it stated that 1s. 3d. had been accepted to-day, but this report lacks confirmation, and we believe there are still buyers at 1s. 3 $\frac{1}{2}$ d. per oz.

RHUBARB.—A rather large quantity, viz. 170 cases, was offered for sale to-day, and a good proportion of it sold at rather lower prices. *Shensi* root, flat, small to medium fair, partly pinky fracture, sold at 1s. 10d. to 2s.; small druggists' root, 1s. 6d. to 1s. 7d.; flat, medium to bold, fairly good bright fracture, 1s. 9d.; bold, round fair coated, half spongy

and half grey fracture, 1s. 4d.; flat ditto, 1s. 2d.; mixed sizes, horny, partly dark fracture, 8d.; fair flat pickings, 7d.; common small black pickings, 4d. to 6 $\frac{1}{2}$ d. per lb. *Canton*, medium to bold, round, fair bright coat, half pink fracture, 1s. 7d.; *High dried*, dull coated, mixed sizes, fair fracture, 1s. per lb.; black wormy rubbish, 3 $\frac{1}{4}$ d. per lb.

SACCHARIN.—The agents for the saccharin manufacturers inform us that they have reduced their quotations as follows:—Pure saccharin to 46s. per lb., soluble ditto to 44s. per lb.

SARSAPARILLA.—Seventeen bales *Lima Jamaica* sold at 1s. 4d. for sound, and 1s. 2d. to 1s. 3d. for damages. For 20 bales *Honduras* (J. L. Truxillo) 10 $\frac{1}{2}$ d. was refused, while 10 bales chumpy *Guayaquil*, partly damaged, sold at 10d. to 11d. Six bales *Native Jamaica* were withdrawn.

SCAMMONY.—In Smyrna the market is exceptionally firm, and the stock has been reduced to a minimum, while the coming crop is not expected to yield more than half of an average quantity.

SENEGA.—An American report states that last year at this time the new crop of root was arriving freely, and sales were then made at 1s. 4d. to 1s. 5d. per lb., but this season all crops in the Western States are so backward that nothing is expected to arrive before the middle of July.

SENNA.—Altogether 239 bales *Tinnevely* were offered. It was a sorry collection, mostly second-hand stuff, and, with the exception of one or two lots of good to fair green leaves, for which 6 $\frac{1}{4}$ d. and 3 $\frac{3}{4}$ d. respectively were paid, everything sold under 2 $\frac{1}{2}$ d. per lb., mostly between $\frac{1}{2}$ d. and 1 $\frac{1}{2}$ d., these being comparatively high prices.

SHELLAC.—A rather brisk business has taken place privately since our last report, and sales are said to have been made at 34s. to 35s. per cwt. for blocky to good free A. C. *garnet* on the spot; 58s. to 60s. for first, and 42s. for third *button*, spot. At the weekly auctions very little was offered; good reddish second orange realised 43s. 6d.; garnet A.C., unworked, 35s. 6d.; and *button*, first, 60s.; good second, 54s.; ordinary third, 43s. 6d. to 44s. per cwt. Since then standard second orange (TN), July-September shipment, has been sold at 43s. c.i.f. terms.

STROPHANTHUS.—Four bags seed were bought in at 8s. per lb. An offer of 4s. 6d. was refused, 5s. being named as the price.

TAMARINDS.—At the spice auctions 124 packages *West Indian* tamarinds were all disposed of at 23s. for fair bright Barbadoes; 23s. to 24s. 6d. for medium to ordinary, and 18s. for common dark St. Kitts. To-day 25 casks fair soft *Calcutta* brought 20s. per cwt.

TEA.—*China.* The *Moyune*, with new season's Moning (some 3,200,000 lbs.), arrived in dock about noon on Monday, and a hungry crowd of samplers were very soon at work on sample packages. The first samples were on the market about 1.30 P.M., and a fairly large business for the afternoon was done, and public sales were held at 3.30 P.M., 4 P.M., and 5 P.M. Prices in public sale ranged from 8d. to 8 $\frac{1}{2}$ d. up to 1s. 4 $\frac{1}{2}$ d. for a small parcel of fairly fine and useful tea. By private contract, however, sales were effected up to as high as 2s. 2d. for a really fine tea, standing away, certainly, from others, but a very stiff price for the tea compared with Indian and Ceylon sorts. Taking the crop generally, as far as can be judged from the first ship, the Oonfaas bid fair to be a very good crop, the leaf being good and the liquor heavy, though generally more or less tarry. Ningchous are rather poor and light in liquor, but, in common with all other sorts, are very good in leaf; while of Keemuns and Kintucks, while there are a few useful fine teas, there are not many serviceable teas from 1s. to 1s. 6d. The average, however, is undoubtedly better than last year, and there are no teas so common as some in the first cargo of 1887. It is said that the *Glengyle* brings more really fine tea than the *Moyune*, and we advise caution in buying these higher grades. *Assam.*—New Indian growths are fairly freely offered this week, and Pekoe Sou-chongs from 7d. to 8d. show fair value; while Pekoes—good leaf teas—to be had between 8d. and 9d., are undoubtedly cheap, though there will be no dearth of these grades. Ceylons are less freely offered, and are unaltered at previous quotations.

VANILLA.—A large quantity, mostly of inferior quality, was offered to-day, and sold very cheaply. It included a large proportion of salvage, badly sea-damaged beans, swollen and without flavour (they have been under water about six weeks), which sold at 2s. 3d. to 5s. 6d. per lb. Other lots sold as follows:—Common dry, foxy, and brownish, 2s. 6d. to 5s.; ord., 5s. 6d. to 10s. 6d.; long, 12s. to 14s.; chocolate, bad flavour, 4s. 6d. to 9s. 6d.; dark chocolate, 4½ to 7 in., 6s. 6d. to 10s. 6d.; rough ditto, brownish, 5½ to 7½, 9s. to 9s. 6d.; good crystallised ditto, 4½ to 6½, 8s. to 10s. 6d.

WAX (BEES').—There is still a fair demand for *Jamaica* wax at about previous prices: 6l. 5s. for good even orange; 6l. for somewhat darker ditto: 5l. 7s. 6d. to 5l. 10d. for grey to chocolate mixed.

WAX (JAPAN).—There has been more demand for this article, and prices have advanced. At auction 55 cases, partly good whitish squares, partly soft and slightly yellow, were bought in at 48s. 6d. to 50s. per cwt.; 47s. 6d. being the nearest value.

CHEMICALS IN THE NORTH OF ENGLAND.

OUR market still suffers from a want of life and activity. Hesitation caused by the peculiar position of the proposed new American tariff, and weakness created by the heavy stocks offering, combine to form a very dull and depressed condition, a condition which can only be ameliorated by an improved demand or reduced production, and neither of these phases is very clear at the moment.

ACIDS.—After a somewhat easier tone, *Tartaric* is firmer, and orders are coming in more freely at 1s. 5½d. per lb.; the same remark applies to *Citric*, which is firm at 1s. 7½d. to 1s. 7¾d. per lb., and a continuance of the hot weather which has lately set in would probably cause an advance in both articles. *Ovalic* has been in better demand at 3d., and there are signs which indicate that an early improvement is probable. *Boracic* is still neglected, and prices continue to drop in the absence of orders—closing values are about 24s. 6d. to 25s. per cwt.

ALUM continues in very steady request, and a large business is only limited by the high rates of freights ruling to the East and West as compared with this period last year. Quotations range from 4l. 15s. to 4l. 17s. 6d. per ton, according to packages. *Sulphate of alumina* has also been in fair demand at 5l. to 5l. 10s. per ton, and *Aluminoferrie* has been moving off freely for paper-making, and also for sewage and purifying purposes at 3l. 2s. 6d. per ton.

AMMONIA SALTS.—During the last fortnight there has been less export inquiry for *Sal ammoniac*, which, however, is very firm at 34s. for first and 32s. per cwt. for second quality. *Muriate* somewhat more active both for home and export at 23l. to 30l. per ton, according to quality, and *Carbonate* in improved request at 3d. per lb. *Sulphate* has been dull and easier for some time past, and closes with a weak tone at 11l. 11s. 3d. to 11l. 12s. 6d. per ton.

BLEACHING POWDER has not recovered the late decline, the supplies being in excess of the demand, and the absence of orders for sanitary purposes (London taking several thousand tons last year, but none this) causes a weak market, and an accumulation of stocks. Selling prices have been 7l. 2s. 6d. on rails, and 7l. 5s. to 7l. 7s. 6d. per ton, f.o.b.

BORAX has been in less inquiry for export, but is steady at 30l. for *Crystals* and 31l. per ton for *Powdered*. Californian is scarce, and 30s. 6d. per cwt. is asked. Somewhat lower quotations, however, come from San Francisco, and an effort is being made to keep up prices in New York and to supply our market at easier rates.

POTASH.—*Prussiate* is lower in consequence of the rupture of the agreement between the English and Foreign makers, and the market is very dull at 6½d. to 6¾d. per lb. *Bichromate* is selling fairly at 4½d. per lb., and *Chlorate* has been in better demand at 5½d., which appears to be the lowest point the market is likely to touch.

SODA SALTS.—*Ash* has been in demand for shipment at 1d. to 1½d. per degree. *Caustic soda* has been somewhat more inquired for for Russia, but values have not improved.

Cream and 60 per cent. White may be quoted at 5l. 13s. 9d., and 70 per cent. at 6l. 12s. 6d. per ton. *Soda crystals* are actively inquired for at 50s., and a falling off in production, caused by the higher temperature, may result in higher prices. *Bicarbonate* is offering freely at 4l. 12s. 6d. per ton, and *Saltcake* is firm at 21s. 6d. per ton.

MILK AND MICRO-ORGANISMS.

In a paper recently communicated to the Chemical Society, Mr. R. Warrington, F.R.S., of Rothamsted, states that the curdling of milk by micro-organisms is effected either by the production of lactic acid, or apparently by the formation of a rennet-like ferment. The amount of lactic acid required to curdle milk depends on the temperature, the amount being smaller the higher the temperature. Among the organisms examined five distinctly acidified milk, but in very different degrees. *Staphylococcus candidus* produces too little acid to cause curdling, even when the milk, after acidification, is placed in boiling water. The bacillus of infantile diarrhoea and *Bacterium termo* produce a greater acidity, curdling milk speedily at 32°, but fail entirely to curdle it at 22°. *Micrococcus gelatinosus* curdles milk speedily at 22°, and even at 10° after many days. The two organisms, *B. fluorescens liquescens* and Koch's cholera spirillum, curdle milk readily at 22° without producing any appreciable acidity; the latter organism will, indeed, curdle milk made alkaline with sodium carbonate without destroying the alkalinity. We have here, apparently, a typical case of curdling by means of a ferment. Two of the acidifying organisms which curdle milk, *M. gelatinosus* and *M. ureæ*, act apparently in part by means of a ferment, as the acidity produced by them when the milk is curdled is quite insufficient in itself to effect curdling at the temperature of the experiment. Soil from an arable field readily curdles milk, even at 10°, but without producing at the time an appreciable acidity; it acts plainly by a ferment. During the action of soil on milk much gas is evolved, even at 10°. No gas was observed during the action of any of the organisms examined, save in an experiment with the bacillus of infantile diarrhoea at 37°.

Five organisms, *B. subtilis*, *B. anthracis*, *B. floccus*, *B. toruliformis*, and Finkler's comma, are active peptonisers. The milk, after a few days at 22°, becomes clear immediately beneath the surface, and this clear space slowly extends till the whole of the milk has lost its opacity. On moving the tube after the action has begun, it is found that the opaque portion is more or less gelatinised. The clearing of the milk is due to the gradual dissolution of the jelly. The clear fluid is rich in peptone. It has been supposed that the liquefaction of gelatine by bacteria is due to the production of a ferment. The whole of the liquefying bacteria experimented on show evidence of the formation of ferments when grown in milk. The organisms which simply acidify do not liquefy. Soil peptonises after curdling, the curd first formed slowly redissolving. A small class of organisms, *B. fluorescens non liquescens* and the bacillus of septicæmia (mouse and guinea pig), render milk after a time decidedly alkaline, and the milk from this cause loses much of its opacity, but no other change is produced. Several organisms grow freely in milk without altering its appearance or its reaction to litmus-paper. Cultivation in milk is an excellent method of distinguishing micro-organisms, the possible results being very varied, especially when the effect of temperature is observed.

TASTELESS EXTRACT OF CASCARA SAGRADA.—At a recent meeting of the Philadelphia Pharmaceutical Association, Mr. England called attention to the tasteless extract of cascara sagrada, made by treating the drug with magnesium carbonate before percolation. He stated that he had made experiments in the same direction, modifying the taste by means of alkalies, and found it made a very much handsomer syrup, that could be mixed with aqueous menstrua without precipitation, and withal was quite a beautiful preparation. But this fluid extract administered in four times the usual dose of a fluid extract made without the use of alkalies was found to be inert. He thought that the value of cascara sagrada depended upon an acid principle that promoted the peristaltic movement of the bowels, and thus was efficient as a cathartic.—*Amer. Journ. Phar.*



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish.

Write on one side of the paper only; write early; and devote a separate sheet of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c., not noticed in this issue will, if possible, be attended to next week.

Conservatism in Pharmacy.

SIR,—At a busy little town not a hundred miles from London, I came this week across the enclosed "Inch of pills," which I have much pleasure in forwarding for your inspection as an instance of antediluvianism, stagnation, or possibly the above heading may better describe it. I may say that these pills are to be purchased at 1*d.* per inch; they are then cut up with a knife into six or eight portions, according to the strength required, rolled up round by the purchaser in the palms of his hands, and swallowed.

I remain, sir, yours truly,

June 22.

W. H. H. (78/39.)

[The pennyworth which our correspondent sends us is a flat piece of pill-mass, 1 inch long and $\frac{1}{3}$ inch wide, wrapped in tin-foil.]

Washing Corks.

SIR,—A wave of horror must have passed over the trade on reading the letter of "Economist." Next to the washing up of hospital sponges for sale by the Hebrews, the idea of washing corks for further use is repulsive. Much better keep them for hair and machine oil, ink, &c. My own plan is to sell them cheap to boys in the pop-gun season; I cannot imagine any better fate for such things. An occasional shilling earned by such economy as washing corks will be risked over and over again by the accidental misuse of one strongly-flavoured cork.

Yours truly,

HEDER. (80/3.)

Seasonable Articles.

SIR,—There has been a great outcry of late years about the damage done to the businesses of the chemists and druggists of this country by the advent of the "Stores," and no doubt there is good reason for the complaint; but I am sometimes inclined to think that the steady-going chemist and druggist may lose some little of the grist that would otherwise come to his mill by not sufficiently laying himself out to meet current public requirements; and, on the other hand, the "Stores" are very wide awake on these points, and have a very keen eye to present and future requirements witness the enclosed circular, headed "Summer Drinks," and offering the various kinds of these beverages at a very low figure, concluding with an offer of English hops at 4 $\frac{1}{2}$ *d.* per lb., and a few simple instructions for making hop beer—a tempting bait, which will no doubt catch many a frugal housewife. Could not more of our chemists and druggists work on these lines, and be ever ready to anticipate public wants, and in many cases really create a demand for seasonable articles? The hops offered at 4 $\frac{1}{2}$ *d.* per lb. are displayed in bulky packages in the windows, and no doubt are sold very largely.

Faithfully yours,

Hull, June 25.

SODA CARB. (79/64.)

[The circular sent is one issued by a limited supply association in Yorkshire, and quotes for a number of summer

drinks, among which are: Lime juice, 8 $\frac{1}{2}$ *d.* per bottle; lime juice cordial, 8*d.*; lemon juice, 7 $\frac{1}{2}$ *d.*; lemon kali, 5 $\frac{1}{2}$ *d.* per lb.; best citrate magnesia, 10*d.*, &c.; also English hops, 4 $\frac{1}{2}$ *d.* per lb. The formula to make hop beer which is given is as follows:—Water, 3 $\frac{1}{2}$ gallons; hops, 2 oz.; whole ginger, well bruised, $\frac{1}{4}$ lb.; raw sugar, 3 lbs.; lemons, 2. Boil the hops and ginger four hours, strain over the sugar and sliced lemons, and when nearly cold mix with one pennyworth of yeast, and bottle when cold.]

Sale of Oxalic Acid.

SIR,—I beg to draw your attention to the oxalic acid case at the Dalston Police Court. What was Mr. Rogers's object in entering the sale in his book? Has a magistrate the power to practically shut up your shop for two or three hours (at any rate that would be my case if ordered to attend with my books) when the Pharmacy Act, 1868, distinctly enacts that oxalic acid is in part 2? Having complied with the law, there is an end to it, I should think; but the magistrate thinks otherwise, for he is satisfied, it seems, with the explanations.

L. D. (80/18.)

Syrup of Iodide of Iron.

SIR,—I had occasion the other day to make this syrup using English or imported loaf sugar, and got quite a different result to what I had when made previously. In the latter case the syrup was quite a dirty brown colour, and in order to get rid of the colour I boiled it for the space of ten minutes, when very much to my surprise the colour was quite discharged, and a clear syrup with a slight greenish tinge was the result. Was I justified in boiling? When I use Australian-made cane-sugar I get a fine clear syrup. Is the difference due to the source of the sugar?

Yours truly,

Maryport, Queensland, May 8.

JACOBUS. (241/2.)

[Most loaf sugar contains a proportion of beet sugar or may be entirely derived from the beet. This sugar contains a little alkali, which throws out ferrous carbonate, as observed in the foregoing case. It may be remedied by boiling as "Jacobus" did, or prevented by acidifying the syrup with citric acid. It is interesting to note that Australian-made sugar appears to be free from beet.—ED.]

Military Compounders of Medicines.

SIR,—As a subscriber to your valuable paper I was surprised and annoyed at the answer given to "Mites" (70/24) in last week's number. I am a qualified compounder of medicines and a sergeant in the "Medical Staff Corps" (no such corps as the Army Hospital Corps in the army). The conditions on which we enlist are similar as you say to the common soldier, viz., twelve years with the colours, six years active, and six years in the reserve. The inducements offered are by passing a severe examination comprising:—

(1) Latin names and words used in prescriptions.

(2) Pharmacy: thorough knowledge of the various articles of materia medica and preparations in the British Pharmacopœia.

(3) Drugs and pharmaceutical remedies, appearances, taste, and odour.

(4) Poisons: names, doses, and antidotes.

(5) Practical dispensing: the examining board consists of three army medical officers and lasts three days.

If you are successful in passing this examination, you are promoted, not unless; past service is not taken into consideration at all, and no transfer of sergeants from line regiments would be allowed.

The pay of a sergeant compounder of medicines is 1*l.* 10*s.* a week, food (meat and bread), lodging, clothing, fuel, and light all free, which I consider is equal to another 30*s.* a week—total 3*l.* a week—which is not paid by civilians to all intelligent and well-doing chemists' assistants.

Yours respectfully,

MILITARY COMPOUNDER OF MEDICINES. (80/65.)

Chemists and the Medical Profession.

SIR,—It has long been my opinion—and up to the present time every medical practitioner to whom I have spoken on the subject acquiesces in that opinion—that there should be greater facilities for chemists to enter the profession of medicine.

Without wishing in any way to disparage the doctors, few even of those gentlemen themselves will disagree with me when I assert that chemists of the present day have a more perfect knowledge of chemistry, materia medica, pharmacy, &c., than the majority of general practitioners.

It necessarily follows that chemists are pre-eminently adapted for the profession; but when one of the body wishes to understand the structure and functions of the tissues and organs to which his drugs find their way, and to study the various diseases for which these drugs are prescribed, what is before him?

He has, first of all, to go back to his school books in order to read for a portion of another preliminary examination, after having already gone through that of the Pharmaceutical Society. Then he has to enter a hospital on the same footing as a newly-registered student who knows nothing whatever about medicine.

Of course, in respect of subjects such as anatomy, physiology, surgery, pathology, &c., the two are on an equal footing; but what I wish to state—and I challenge anyone to prove that the statement is an unreasonable one—is this, that a chemist's final should be accepted by examining boards in lieu of the few extra subjects required at the various registration examinations. This, I think, is the very least that should be conceded, and I am not without hope that the concession may be brought about through the medium of your valuable paper.

I am, sir, yours faithfully,

J. C. HERON.

10 Hatton Garden, Holborn, E.C., June 26.

[Our correspondent rather exaggerates the difficulties which chemists and druggists have to surmount preliminary to entering the medical profession. The General Medical Council accepts, *pro tanto*, the Pharmaceutical Preliminary examination in lieu of the corresponding subjects of the Medical Preliminary, and evidence of having passed the Minor examination exempts the applicant from the optional subjects (which include elementary chemistry and botany), one of which only is required. The remaining subjects are *algebra*, including simple equations; *geometry*, including the first book of Euclid, with easy questions on the subject matter of the same; and *elementary mechanics* of solids and fluids, comprising the elements of statics, dynamics, and hydrostatics. If the applicant cannot produce evidence that he is proficient in these subjects, it would be unreasonable for him, be he a chemist and druggist or not, to expect to be excused. Chemistry and pharmacy are the only subjects of the Medical Curriculum in which the chemist and druggist has passed an examination; the certificate exempts him from pharmacy, and it might also exempt him from chemistry if it showed that the applicant had passed the course of training which the General Medical Council requires. The materia medica and therapeutics of the medical examinations are generally taken together, therapeutics being the major portion. These matters were fully explained in THE CHEMIST AND DRUGGIST of February 25 and subsequent issues. Our correspondent's hope that the concession may be brought about through the medium of this journal has indeed been fulfilled.]

A Disease of Sheep.

Constant Reader (46/77) asks for information as to the causes and best mode of treatment for a disease in sheep rather prevalent in his district (eastern counties). His customer says he gets no beneficial help from the veterinary professors. He has recently lost several sheep, as have other farmers in the neighbourhood. When first attacked, the sheep appears a little stiff. On closer examination it is found that on one side only the bag is slightly black and hard; the stiffness increases until the sheep is unable to walk, and in forty-eight hours it is dead.

[This query shows us the presence of a disease in England which we had hoped did not now exist, and for which any

kind of treatment is very difficult. In the Swiss valleys a vast number of sheep are lost from this cause. It is in the first instance inflammation of the mammary gland, but takes on a malignant form, and blood poisoning follows.

Sheep are at all times very bad subjects for blood letting or wounds, but a very careful excision of the blackened portion of the udder sometimes succeeds if done early and dressed with antiseptics, such as acid carbol. 1 part, ol. olive 20 parts. Searing through with a red hot iron, and separating through the line of demarcation which the disease has already drawn, is the safest, and perhaps not more painful plan (as the blackened part is already insensible). The diseased part should be instantly separated from the healthy, as there is no doubt of it being infectious. Any suspected cases should have the bag dressed with a weak carbolic oil, say 1 in 40 (removing the lamb, of course, to another ewe), and hand-milked by the shepherd as often as possible. A dose of

Mag. sulph.	..	..	..	..	..	3ij.
Pot. nit.	..	..	..	..	..	3ij.
Tinct. aconit.	..	..	..	..	..	℥ iij.

M.

Given in gruel or small beer, and after the aperient has acted 1-drachm doses of quinine three days in succession should be given. This treatment appears to have saved many, but as "prevention is better than cure," we should particularly advise the early segregation of those sheep who lop their ears and stand apart, as well as the removal of all the others to a new pasture at whatever inconvenience to the owner.]

The Syphon Trade.

SIR,—We thank you for your kindly expressed leaderette with reference to the syphon trade and the case of *Idris v. Ward*, reported in your last week's issue, and shall be glad if you will allow us to point out that, in addition to the remedy against the loss of these expensive vessels pointed out by you (*i.e.*, greater strictness in keeping accounts), another effectual remedy would be to stop the purchase of them from marine store dealers and others by chemists who are our customers. If the few of the retailers did not connive at this robbery of their fellow-tradesmen by purchasing from questionable sources, there would be no temptation to deal in them. We have abundant evidence of the illegitimate way in which syphons usually come into the possession of these dealers, and we have always succeeded when we have charged men with unlawful possession of syphons in police courts. In almost every case where the syphons have been offered to our customers, and have been detained in order to make inquiries as to how they came into the possession of the persons presenting them, the bottle-dealer has disappeared leaving the syphons behind. We would suggest that if every chemist who is offered such syphons is determined to ascertain whether the person offering them has a legitimate right to sell them, the losses of our customers would be reduced to very small proportions. We shall always be glad to give every legal and other assistance in such cases. The losses of many of our customers have been so great from the depredations of servants, bottle-dealers, and others that we have determined in their interests to have a definite statement of the law in the present circumstances, and have, therefore, given notice of appeal in the case of *Idris v. Ward*, and will, if necessary, carry it to the House of Lords.

We are advised by able counsel that we are almost certain to succeed; but should we be unsuccessful we shall be able to protect ourselves and our customers from dishonest dealers by notices on our invoices (amounting to a contract) to the effect that the property in our trade-marked syphons is not transferred, but that the syphons are loaned, subject to deposits paid on them.

Yours truly,

IDRIS & CO.

Ascham Street, Kentish Town, N.W., June 28.

MESSRS. LONGMANS, GREEN & Co., of Paternoster Row, are the publishers of Mr. Robert Galloway's work, "The Fundamental Principles of Chemistry Practically Taught by a New Method," which we reviewed last week.

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

Dispensers who have compounded any of the following prescriptions, or similar ones, are requested to communicate their results to the Editor.

Emulsion or Mixture?

SIR,—This combination is a very good illustration of the prescriptions of certain medicals who make a point of throwing a lot of mud in the hope that some will stick. It is both chemically and pharmaceutically incompatible. The hydrobromic acid throws out the salicylic from the soda salt, and the salicylic combines with the quinine, forming a sticky mass, if care be not taken in compounding. Allow me to suggest to "Benjamin" the following method, which I find makes a presentable mixture:—

Emulsify in a mortar the tincture with ʒss. mucilage of acacia diluted with a little water; to this add the quinine previously dissolved in the hydrobromic acid and ʒss. water. Dissolve the sodium salicylate and ammonium chloride in the remainder of the water, and add this solution to the emulsion little by little and stirring constantly. Great care is required in mixing, or salicylate of quinine will separate in sticky lumps.

At first I tried ʒij. mucilage only, but the result was not nearly so satisfactory as the above. WILKAN.

SIR,—I have dispensed the quinine and extract of cannabis mixture in the following manner:—

I shook the quinine up first with water, then added the hydrobromic acid. The sodium salicylate was put into a mortar, rubbed down till dissolved, then the acid solution of quinine added to it. The ammonium chloride was dissolved in water, and this added to the mixture. Finally, the tincture was mixed with ʒss. pulv. tragacanth. co., this added to the mixture, and the whole made up to 8 oz.

CANTHARTICUS. (79/36.)

SIR,—I believe the prescription may be dispensed easily by this method:—Rub up the quinine and salicylate with 30 grains of pu. trag. co., 1 oz. of water, and ½ a drachm of the acid. Add the tincture and make an emulsion. Mix the rest of the acid and the ammonium chloride with the full quantity of water, and add gradually to the emulsion. Avoid any violent agitation.

Yours truly,
HEDER.

Quinine and Citric Acid.

SIR,—The precipitate formed in "Verdant's" mixture is citrate of quinine, the formation of which cannot be avoided. I should, if possible, consult the prescriber and recommend the exclusion of the citric acid. CACODYL.

SIR,—With regard to the mixture "Verdant" is in trouble about, he cannot make it free from deposit. The ferri et am. cit. plays no part in the decomposition, but in dissolving the quinine hydroch. in the acid cit. the citrate of quinine formed is sure to come out of solution in so small a quantity of water, seeing that the solubility of citrate of quinine is only about 1 part in 900 parts. Yours very truly,

CASCARA. (81/74.)

An Ointment Query.

SIR,—I received the following to dispense last week, and should like to know the best way to dispense it:—

Potassii bromidi	..	..	..	..	ʒiiss.
Zinci oxydi	..	..	..	..	ʒiiss.
Ext. cannab. ind.	..	..	..	..	ʒss.
Glyceriti amyli	..	..	..	..	ʒviiss.

M.

ENQUIRER. (80/26.)

Calomel and Ammonium Bromide in Powders.

SIR,—The following prescription was handed in to be dispensed:—

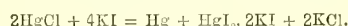
Hydrarg. subchlor.	..	..	..	..	gr. ij.
P. scammon. co.	..	..	..	..	" v.
Ammon. bromid.	..	..	..	..	" x.

Ft. pulv. Mitte vj.

Sig.—One in water at bedtime.

The combination is a strange one, and the fact of never having met with it before caused me to hesitate before dispensing it.

The action of the alkaline iodides when added in excess to mercurous salts is the oxidation of half the mercury into a mercuric salt, and a liberation of the remainder as metal, according to the following equation (probably):—



On the addition of water to the calomel and bromide of the above prescription a blackish precipitate results, which on filtration and drying shows globules of mercury on pressure with a glass rod, while the clear liquor gives the reactions for mercuric salt. This shows the combination to be a most dangerous one, and should never be dispensed unless the dispenser is sure the doctor knows what he is about, as apparently bromides act on calomel like iodides.

WILKAN.

Chloral and Camphor Pills.

SIR,—Can any of your readers suggest a method for making up

Chloral. hydrat.	..	..	..	..	gr. xxx.
Camphor.	..	..	..	..	gr. iij.

In pil. 8.

I believe soluble cream of tartar has been recommended. Is it of any service? S. RHYS HARRY.

Ferri Carb.

80/36. *Cocaine Hydrochlor.* (Belfast) writes:—"We have had an electuary to dispense containing ferri carb. Three of us said ferri perox. hyd. ought to be used, while the fourth thought that ferri carb. sacch. was right. He based his authority on pil. ferri carb. B.P., which is made with ferri carb. sacch. Which is right, or which is used by the trade generally?"

[The old sesquioxide of iron of the London and Edinburgh Pharmacopœias was the "ferri carbonas" of the Dublin Pharmacopœia, that name distinguishing it from the ferri oxidum rubrum Ph.Dub., or coelethar, which was prepared by roasting ferrous sulphate. Our experience is that the old sesquioxide is generally dispensed when ferri carb. is ordered. It is different in composition from the dried peroxide of the British Pharmacopœia. Those who are not aware of that fact give the peroxide for the sesquioxide. Considering that the prescription is an Irish one, we should think it unlikely that the prescriber meant ferri carb. sacch.]

Ferric Chloride and Potassium Iodide.

SIR,—I had the following prescription handed in the other evening, and not being able to consult the prescriber I dispensed the tr. ferri perchlor. separately. Afterwards I saw the prescriber and explained what I had done, when he told me I had no business to interfere in any way with his prescription. Was I justified in what I did; if not, what ought I to have done?

Liq. Fowleri	..	..	..	..	ʒj.
Tr. ferri perchlor.	..	..	..	..	ʒiij.
Pot. iodidi	..	..	..	..	ʒiiss.
Inf. quassiae ad	..	..	..	..	ʒvj.

Yours,

BON ACCORD. (244/40.)

[It was recently pointed out in a similar case that the potassium iodide reduces the ferric chloride, there being liberation of iron. We presume that it was for this reason that "Bonaccord" adopted the plan of giving the tincture of perchloride of iron separately. This procedure is, strictly

speaking, contrary to the unwritten law which should be observed in the dispensing of physicians' prescriptions. As the medicine is simply a tonic for which the patient might wait a day, or even more, it would have been better to have made some plausible excuse for delay and meanwhile consulted the prescriber, pointing out the nature of the decomposition which would ensue if the prescription were dispensed as written. If the prescriber insisted upon having it so dispensed, it would remain for the chemist to decide whether he would take his share of the responsibility.]

LEGAL QUERIES.

24/79. *T. B. W.*—You could in all probability stop the registration of the word if you take the necessary legal proceedings. But as the application has been made, no doubt, in ignorance of your right to the term, you had better, we should say, first write to the applicants and see whether any *modus vivendi* can be arrived at.

33/79. *Balsam.*—You are liable to a heavy penalty, on prosecution by the Board of Inland Revenue, if you use methylated spirit at all in the manufacture of any preparation capable of being used internally as a medicine. Tinct. benzoin co. is such a preparation.

8/78. *Homoeo* asks whether aconite, arsenic, antim. tart., belladonna, cantharides, nux vomica, opium, &c., can be sold without being labelled poison when they are of attenuation 1. ($\frac{1}{100}$), or do they, in this diluted form, come under the dispensing regulations required by the Pharmacy Act?

We should say that a weak solution of emetic tartar (1-100) would not be liable; nor is a preparation of cantharides that has not vesicating properties. The other preparations would be liable if the Act were strictly interpreted. It is not usual, however, to put a poison label on the higher dilutions of these preparations, nor would a prosecution be practicable in most cases, because it would be impossible, generally, to prove the presence of the poison.

79/65. *Scrutator.*—It would be possible to make such arrangements in a will as you suggest, but it would not be desirable to make them in just the way you indicate. That matter, however, we must leave to your solicitor, as we cannot advise on will-making generally, and it would not be wise to plan such a complicated scheme without the aid of a solicitor. But as far as the Pharmacy Act requirements are concerned, you should understand that it is the executors, not the widow as such, who are entitled to carry on the business of a deceased chemist and druggist with the aid of a qualified assistant.

8/80. *H. R.*—Although Friar's balsam is named in the schedule to the Medicine Stamp Act as liable to medicine stamp duty, the Board of Inland Revenue do not claim this duty on the Pharmacopœia preparation, tinct. benzoini co., which is generally sold under that name. But even this article would require a stamp if labelled with a recommendation as to its effects in healing or curing any disease. You will find this and all cognate subjects explained in Mr. Alpe's "Handbook to the Medicine Stamp Acts," which we shall publish shortly.

Shop v. Pharmacy.—*Heder* writes:—"Referring to your reply to 'Minor' (77/32), I may remark that the custom of calling our shops 'pharmacies' must surely be as unlawful as the assumption of the title of 'pharmacists' by ordinary chemists. It is unfortunate that we cannot have a name for our places of business 'all to ourselves.' Just think, sir, of the gratification of the lady members of our household if we could for ever drop the name of shop. It would be one of the major blessings of the Pharmaceutical Society."

[We do not think it at all follows that because the use of the term "pharmacist" is expressly prohibited to all except pharmaceutical chemists, the use of the term "pharmacy" is similarly protected. It must be remembered that

the Pharmacy Acts, being measures in restraint of trade, are construed strictly, and no Court would be justified in extending the operation of the Acts in the manner suggested. The only ground on which pharmaceutical chemists could claim the exclusive right to the use of the term "pharmacy" as applied to shops, would be that its exhibition implied that the owner is a member of the Society (under section 12 of the Act of 1852). This would be, we think, too far-fetched to satisfy any Court.]

Lac Sulphuris.—*Heder* writes:—"Kindly give us your opinion on this point. Are we expected to sell the old lac sulph. if asked for milk of sulphur? Is it illegal to supply the sulph. precip.? If so I am a great sinner, for I have never had the former on my premises. From the first I have found no difficulty in getting a good price for the pure article."

[If "milk of sulphur" is asked for we should say the old compound of sulphur and lime sulphate ought in strictness to be given. It has been several times decided that in such cases "precipitated sulphur" need not be sold, but a Court has never been asked to say what should be sold. If "*Heder*" should be prosecuted his defence would be, no doubt, that he had gone to an extra expense to provide a purer article, and that defence would probably be successful.]

49/80. *Pelican* suggests the advisability of chemists looking over their diarrhoea-mixture labels, as, through an oversight, he has had to pay a fine for using the following words on a label:—"Diarrhoea or Bowel-complaint Mixture; an excellent preventive and remedy."

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for formulæ which have already been published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

75/18. *G. F. S.*—You should get one of Stone's balances, which are very satisfactory. You can get a balance with or without a glass case. See advertisement in *DIARY*, page 30. Thanks for your suggestion.

75/36. *Pelican.*—The following is a formula which gives the best **Marking-ink** that we know of, but it does not "turn black as soon as written, without the aid of heat." We should be suspicious of any ink of that character.

Nitrate of silver	3½ oz.
Sodium bicarbonate	4½ "
Solution of ammonia (s.g. 880)	3½ "
Tartaric acid	10½ drachms
Archil	1 oz.
Soluble sap green	1 "
Powdered acaëia	2½ "
Sugar	1½ "
Water	9-5.

Dissolve the silver and soda salts, each separately, in 2 pints of boiling water, and mix the solutions. Allow the precipitate to settle, decant the fluid, and collect the precipitate on a paper filter, wash it with a pint of water, and, when drained, transfer it to a mortar; add the acid, and mix. When effervescence has ceased add the ammonia solution, and transfer the whole to a bottle containing the sugar. Now dissolve the sap green in 4 oz. of water and the archil by the aid of heat; add the acaëia to the mixture, stir until dissolved, and strain. Add the ammoniacal solution to this, and make up to 20 oz. with water.

242/28. *S. J. N.*—The publishers are Macmillan & Co.

75/37. *T. J. R.*—The formula for **Damiana Extract** for impotency will be found in our issue of September 24, 1887, page 389.

75/65, *A. Oglesby*; and 81/56, *Albus*.—If you refer to the index you will see that information regarding German Yeast has been published lately. To convert brewers' yeast into an article-fit for retailing, take about 7 lbs. of it, place in a 30 or 40 gallon tub, and fill up the tub with cold spring-water, stir well, and repeat the stirring occasionally during a day, then allow to stand all night and decant the water; repeat this washing process twice, the third quantity of water having a little carbonate of ammonia and bicarbonate of soda (3j. of each) added to it. Wash again, then collect the yeast on a canvas cloth, and by means of a screw-press get rid of the superfluous moisture. The product is about a fourth of the quantity of "barm" taken.

75/72. *Nemo* (Wakefield).—We do not have a formula for hop-ale essence.

76/22. *Attraction*.—(1) Ink for Marking Sacks.—Shellac, 2 oz.; borax, 2 oz.; water, 25 oz.; gum arabic, 2 oz.; ultramarine, q.s. Boil the borax and shellac with 10 oz. of water until dissolved, then add the gum arabic dissolved in the rest of the water, and colour with the ultramarine. For a black ink use in place of 15 oz. of the water the same quantity of a strong black ink. (2) We fail to grasp your idea about thickening writing-ink. Do you want it not to write? (3) Draper's Dichroic Ink is a very satisfactory one. Of the blue-black class, Stephens' appears to be the most popular and the most "cut."

Attraction has found the following very serviceable for Quinsy:—

Tr. ferri perchlor.	..	..	..	..	3ij.
Glycerin. pur.	..	..	..	..	3ij.
Luf. quassie ad	..	..	..	..	3vj.
Coeh. mag. ij. ter die.					

76/27. *W. F. W.*—We have not seen any published formula for Tinctura Cascarae Sagradae, but you might try the following:—

					Oz.
Cascara sagrada	..	..	..	..	4
Ginger	..	..	..	..	$\frac{1}{2}$
Cinnamon	..	..	..	..	$\frac{1}{2}$
Liquorice root	..	..	..	..	1
Water	..	..	..	..	4
Rectified spirit	..	..	..	..	16

Reduce the drugs to coarse powder and make a pint of tincture by percolation.

81/7. *Phenol* writes that he will be much obliged for information respecting the sample of vegetable gum which was sent twice for analysis.

["Phenol" has not thought proper to comply with our rules in giving us his name and address. This is the reason his samples have been disregarded. But he should also understand that we cannot undertake to analyse every article sent to us; we can only make analyses when we think the information thus gained will be of some general interest.]

77/10. *Ung. Sulph.*—The Powder for Colouring Canaries is a mixture of powdered turmeric, 7 parts, with finely powdered capsicum, 1 part.

39/244. *S. G.*—Some branch businesses are more successful and profitable than the head establishments; others are a source of continual worry to the owners, and yield little return.

76/33. *Durham*.—(1) Laundry Blue. — Chinese blue, 3 oz.; oxalic acid, $1\frac{1}{2}$ oz. Powder and make into a cream with 10 oz. of boiling water, then add sufficient cold water to make a gallon of blue. (2) The "wax" is stearine. This correspondent wishes hints as to the best way of making Furniture Cream in quantity where constant shaking is necessary.

77/54. *Vinea*.—Our last Educational number was September 17, 1887, but it is out of print.

77/43. *Small-pox*.—When Small-pox was epidemic in Sheffield last year there was great demand for a powder composed of cream of tartar, 1 oz., and powdered rhubarb, 14 grains. This was said to be an effective preventive, but of this there is no proof. Minute doses of tincture of belladonna (2 or 3 minims) are also said to be useful. You should give your customer the Sheffield powder, directing as much as will lie on a shilling to be taken twice a day; it can do no harm, and may do good by relieving the bowels and allaying feverish tendency. A camphor-locket should also be worn.

78/20. *W. Lyle*.—The rule for calculating the volumes of two liquids of different specific gravity required to produce a mixture of a certain specific gravity is as follows:—The difference between the specific gravity of the heaviest liquid and the required specific gravity gives the volume of the lighter liquid to be taken, and the difference between the specific gravity of the lighter liquid and the required specific gravity gives the volume of the heavier liquid to be taken. Thus, five volumes of a liquid, specific gravity 0.800, are required to mix with two volumes of one, specific gravity 1.500, to produce a mixture, specific gravity 1.000. (2) We have seen granular effervescent ferri ammon. cit. both grey and brown.

242/28. *S. J. North*.—A weak solution of chlorinated lime is used for removing damp stains from paper.

79/9. *Lip-salve*.—There is no chemical preparation for the removal of tattoo-marks; only the surgeon's knife will do it.

79/39. *L. Morgan*.—For the Removal of Freckles the following lotion is satisfactory:—

Zinci sulphocarbolutis	..	..	..	3ss.
Glycerini	..	..	..	3j.
Aquæ rosæ	..	..	..	3vj.

Mix.

To be sponged on the parts at bedtime.

For obstinate spots use also an ointment composed of white precipitate and bismuth subnitrate, of each 60 grains, with toilet lanoline $\frac{1}{2}$ oz.

79/43. *N. O. P.*—The unsatisfactory nature of Russel's prescription for the cure of obesity has been repeatedly referred to in this journal, and you will find references to it in the index. The originator of the prescription does not intend it to be compounded by chemists, as the serious and paying part of the cure to him is in supplying the medicine. What the medicine actually supplied is we do not know.

79/44. *D. L. Erans*.—The Onion, according to Fourcroy and Vauquelin, contains an acrid volatile oil, uncrystallisable sugar, gum, albumen, woody fibre, acetic and phosphoric acids, phosphate and citrate of lime, and water. The volatile oil is a sulphuretted body. The acidity of the tomato is due to citric acid, and the most complete analysis of it is by Foderé and Hecht (*Journ. de Pharm.*, xviii, 105).

79/69. *August*.—See letter by a "Military Compounder of Medicines" in this issue.

80/33. *Viridis*.—The "terms of apprenticeship to the drug trade in England" depend entirely upon the character of the business. Four years is the more usual length of service now, though five years is not unusual, and, if taken indoors, board and lodging being provided, a premium varying from 20l. to 200l. is usually paid with the apprentice.

74/69. *Leo*.—The "hartshorn shavings" which you send more resemble **Burnt Hartshorn**—carbonate of lime being the principal constituent, phosphate and silica being the others. What your customer has got for cleaning silver was doubtless a mixture of prepared chalk and carbonate of ammonia. This mixture is excellent for cleaning plate.

72/74. *Hederal*.—The powder which you send us—one which is used by brewers for **Clarifying and Preserving Beer**—is composed of prepared chalk (about 15 parts) and calcium sulphite (about 1 part). If you cannot get the latter salt, use 6 drachms of sodium sulphite to 1 lb. of prepared chalk. A tablespoonful of this mixture will be sufficient for a barrel of beer.

75/5. *Vet.* sends a sample of **Black Oils** used in his locality for scour in calves. A similar preparation may be made from the following formula:—

Linsced oil	20 oz.
Oil of turpentine	1 "
Sulphuric acid	1 1/2 "

Mix the oils in a 7-lb. earthenware jar, add the acid gradually, stirring all the while. Allow to stand for six hours, then add half a pint of water, mix, allow to settle, and decant the oil.

75/48. *E. T. A.* sends a sample of **Hair Stainer** said by the manufacturer to be the best on the market, and found by our correspondent "to produce an excellent brown, and a much more natural colour than anything else." The preparation is made by a Bradford firm, and is put up in 6-drachm flat, blue-glass bottles, which, with a small tooth-brush for its application, is sold at 1s. 6d. Our analysis of this dye shows that its composition is approximately represented by the following formula:—

Nitrate of silver	20 grains
Sulphate of copper	6 "
Strong solution of ammonia	a sufficiency
Rose-water	to 6 drachms

Dissolve the salts in 2 drachms of the rose-water, and add the solution of ammonia until a clear blue solution is formed; then add rose-water to 6 fluid drachms.

Directions.—For light shades of brown the solution should be applied once a week, and for darker shades twice a week. It is preferable, however, to dilute the dye with its own volume of water for the pale shades.

(2) It is sulphite of soda which is used in other silver dyes.

75/63. *Stiff Neck*.—**Starch Gloss**.—The preparation which you send contains spermaceti, gum arabic, borax, and a little starch. Try the following formula:—

Borax	6 oz.
Spermaceti	1 "
Gum arabic	1/2 "
Starch	1/4 "

These ingredients (all in fine powder) to be thoroughly mixed.

79/62. *A. O. R.*—**Crystallised Cream of Honey**.—

Nut oil	16 oz.
Spermaceti	2 "
Gamboge	1 drachm
Oil of verbena	10 drops
" cassia	20 "
" bergamot	30 "
Otto of rose	3 "

Digest the spermaceti, oil, and gamboge together over a water-bath for twenty minutes, add the perfumes, and strain into bottles.

The bottles should be perfectly dry, and placed up to their necks in a pan of hot water immediately before filling, and allowed to remain in the water after they are filled until the pomade has "set." In this manner a beautifully crystalline preparation is obtained. A sufficiency of Danish butter-colouring may be used in place of the gamboge. It gives less trouble.

The *Enquirer* who required addresses of makers of stone-ware bottles is asked to send his address.

79/59. *Arbeitsam*.—**Pavement Concrete** is a mixture of roughly-ground stone or granite with Portland cement. The cement is a calcined mixture of limestone and argillaceous earth, but the vat waste of alkali manufactures is now being utilised for the manufacture of the cement.

80/11. *Ignoramus*.—You cannot use animal charcoal for removing the excess of burnt sugar from the lime-juice cordial, as the acid contained in the juice will be partially neutralised by the calcium carbonate contained in the charcoal. Your best plan would be to make a fresh quantity of the cordial without colouring and mix it with the other lot.

80/67. *Medicus*.—See the letter by Mr. Heron and the note attached to it in this issue. There will be an examination at the Durham University on September 25 in the optional subjects. You may then enter for the examination in additional mathematics and elementary mechanics, and a certificate of having passed these subjects, together with the Preliminary and Minor certificates, will entitle you to registration as a medical student. Dr. Luke Armstrong, 1 Eldon Square, Newcastle-on-Tyne, will give you all information regarding the Durham examinations, and you will find previous examination papers in the calendar of the university. Some degree-granting bodies require one or two subjects in addition to what are covered by the Medical Council's requirements. Particulars regarding that and the other information which you desire will be given in our next Educational number.

81/46. *Perseverance*.—The foregoing reply will show you what has to be done. The Royal College of Surgeons does not have a Preliminary examination.

81/63. The name given does not appear on the register of chemists and druggists.

72/28. *Nemo* (London).—In fitting up **Electric Bells** three wires are necessary. One of these you carry from the battery to the electro-magnet which works the hammer of the bell, a second wire is carried from the electro-magnet to the "push," and a third wire from the "push" to the battery. When the "push" is pressed the tin which is attached to it, and which carries either the second or third wire, touches its neighbour and makes the connection.

76/29. *J. G.*—Consult a pronouncing dictionary.

79/22. *Tragacanth*.—In the formula for **Essence of Lemon**, page 497, 1 oz. of oil of lemon is intended.

81/66. *Meeching*.—**Glycerine of belladonna** is a solution of 1 drachm of extract of belladonna, thinned with 1 drachm of water, in 1 fluid oz. of glycerine.

Information Wanted.

[Replies to the following requests are solicited by correspondents of THE CHEMIST AND DRUGGIST.]

43/57. Formula for chlorodyne lozenges.

78/47. Composition of "Black Gip," used for dyeing white patches of hair on horses.

80/53 asks for address of firm in Sweden who make cheap matches.

71/39. Formula for **Felon Drink** for cows.

76/58. Varnish suitable for indiarubber enemas.

81/49. *Aquarium* asks, "What small plants and fish, if any, can be kept in an aquarium with leeches?"

A Magnificent Show-Card, "BUBBLES"

By Sir JOHN E. MILLAIS, Bart., R.A.

WILL SHORTLY BE ISSUED BY MESSRS.

PEARS

Who have spared no pains or expense to make this subject worthy the acceptance of the Trade, and superior to any Show Card yet produced.

£20,000

have already been spent upon it. It will be a facsimile of the original painting (the *chef-d'œuvre* of

The Most Eminent English Artist

SIR J. E. MILLAIS, BART., R.A., purchased by Messrs. PEARS for £2,200), from which original each copy will *scarcely be distinguishable*.

Depots:

LONDON: 71-75, New Oxford Street, W.C., LONDON.

NEW YORK: 365 and 367, Canal Street, NEW YORK,

MELBOURNE: 132, Collins Street West, MELBOURNE.

NEVER FAILING! SELF ADJUSTING!! PATIENCE SAVING!!!

R. H. BARRETT'S NEW PATENT BOTTLE.

THE ONLY REALLY PERFECT CAPPED BOTTLE FOR VASELINE, POMADE, DRY POWDERS, &c.

Prices—Best Box-wood Caps, 2 oz. 20/-, 3 oz. 24/-, 4 oz. 28/- per gross.

Chemists' and Perfumers' Bottles in great variety, Plain or Stoppered. Orders may be sent to the
PRINCIPAL WHOLESALE HOUSES.**R. H. BARRETT,**

FLINT GLASS BOTTLE WORKS,

THE OVAL, CAMBRIDGE HEATH, LONDON, E.

Telegraphic Address—"FOREFRONT LONDON."

[2]

NASCIO AVELINE & CO., MESSINA, SICILY,

EXPORTERS OF

ESTABLISHED 1830,

SICILIAN PRODUCE

AND

Essential Oils of Lemon, Bergamotte, Orange,

AND MANUFACTURERS OF

**CITRIC ACID, TARTARIC ACID,
SULPHURIC ACID,** concentrated to 66° Baumé**FOREIGN SPECIALITIES & MEDICINES.**

REVISED PRICE LIST.

ROBERTS & CO.**FOREIGN AND ENGLISH CHEMISTS,**

WHOLESALE, IMPORT, AND EXPORT AGENTS FOR

FOREIGN MEDICINES AND PATENTS,**76 NEW BOND STREET, LONDON.**Messrs. Roberts & Co. beg to inform the Trade that they are Agents for all the principal French and Foreign Specialities and Medicines, a large supply of which they have always on hand, and can supply on very favourable terms. They are in daily communication with their Paris House, and can offer exceptional facilities for procuring New Medicines, &c., &c., with very little delay. The following is a list of a few that they name *au hazard*, any that have a large sale:—

Retail	Per doz.	Retail	Per doz.	Retail	Per doz.	Retail	Per doz.
4/6..Alcool de Menthe Riebles	41/5	4/6..Capsules Matico	36/	2/3..Guyot's Goudron	13/	7/0..Rabuteau's Elixir Ferrug.	65/
2/9..Ditto ditto	21/8	4/6.. " Raquin	36/	11/..Laville's Gout Tincture	91/10	2/9.. " Sirop	24/4
2/9..Aubergier's Syrup	26/3	4/6.. " Mathey Caylus	27/	11/.. " Pills	91/10	4/0..Racahout	31/
2/9.. " Pâté	15/4	4/6..Chassaing's Wine	38/9	2/3..Papier Fayard	13/6	4/6..Reynal's Bougies	37/10
6/6..Bay Rum	57/	2/9.. " Pills	24/4	1/1 1/2..Ditto	7/3	2/9..Ricord's Injection	24/4
5/6..Ditto	31/	4/6..Clu's Bromide Cam. Dragées	45/	4/..Papier Fruneau	24/4	4/6.. " Capsules	36/
2/..Belloc's Charcoal	15/4	5/..Eau Botot (Genuine)	40/1	2/3..Ditto	14/5	9/.. " Syrup	90/; 4/6; 42/
1/9.. " Lozenges	14/5	3/..Ditto	24/4	1/9..Pâté Aubergier	15/4	1/6..Star Paper	11/
4/6..Blancard's Pills	32/5	2/6..Espin's Cigarettes	13/6	1/9.. " de Berthé	15/4	2/9..Vallet's Pills	22/6
2/6.. " Ditto	18/	6/..Elixir de Coca	56/9	2/9.. " de Coca	24/4	1/9.. " Ditto	14/5
8/..Bron's Injection	27/	2/9..Flon's Syrup	22/6	1/9.. " de Georgé	14/5	4/6..Veloutine (White,Pnk,Yel.)	37/10
8/..Bngeaud's Wine	36/	2/..Gayetty's Paper	15/4	1/1 1/2..Ditto	9/	3/6.. " Ditto	27/
4/..Bully's Vinegar	32/5	2/3..Granules Arsen. Acid.	13/6	1/6.. " de Nafé	13/6	2/9..Vichot's Trochisques	21/8
2/.. " Ditto	16/3	2/9.. " Iron	14/5	1/9.. " Regnauld	14/5	4/6..Valentine's Meat Juice	38/
4/6..Candé's (Lait Antépbiliq.)	39/8	2/9.. " Soda	15/4	7/..Pierlot's Valerian	59/5	4/6..Vin de Coca Mariani	39/8
4/6..Capsules Bromide Camph.	45/	2/9..Grimalt's Syrup Lime	23/5	2/9..Rabuteau's Dréges Ferrug	24/4		

Special Quotations in large quantities.

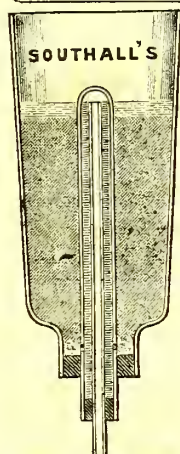
MM. Roberts & Cie. ont l'honneur d'informer MM. les Pharmaciens Spécialistes de France et de l'Etranger qu'ils se mettent à leur disposition pour des dépôts qu'ils voudraient établir à Londres. On peut avoir tous renseignements en s'adressant à leur maison de Londres ou à Paris.

SPECIAL AGENTS FOR MARIANI'S ELIXIR, EXTRACT PATE, PILLS, SYRUP AND WINE OF COCA, AND FOR VALENTINE'S MEAT JUICE AND LE GRAND'S ORIZA PERFUMERY.

Established]

House in Paris: **ROBERTS & CO., Rue de la Paix 5.**

[1823]



SOUTHALLS' "STANDARD PERCOLATOR."

SOUTHALL'S "STANDARD PERCOLATOR" has been introduced to supply the long-felt want of a small, cheap, but efficient Percolator. By its use the loss of Spirit in manufacturing Tinctures is much less than by the old-fashioned method of maceration, whilst the exhaustion of the drug is more perfect.

The "Standard Percolator" is well adapted for the manufacture of FLUID EXTRACTS. The process is so simple that an apprentice, with a little personal supervision, is able to conduct the whole operation.

For TINCTURES one Percolator is sufficient, but for FLUID EXTRACTS, where the process of re-percolation is recommended, four are required.

PRICES.

	No. 1.	No. 2.	No. 3.
With Stained and Varnished Stand	5/3	6/9	10/
Set of four for Fluid Extracts, with Stained and Varnished Stand ..	19/6	24/6	37/

Illustrated Pamphlet, giving full particulars, free on application.

POTASSII TARTRAS ACIDA ACID TARTRATE OF POTASSIUM.

Synonyms :—Cream of Tartar, Potassæ Bitartras, Bitartrate of Potash, Potassæ Tartras Acida, Acid Tartrate of Potash.

As will be seen by our article in the *Pharmaceutical Journal*, June 16th, page 1045, we have for some time past experienced great difficulty in obtaining crystals of Cream of Tartar, which, when ground, produced an article to stand the Pharmacopœia test, namely, 92.16% of $\text{KH}_2\text{C}_4\text{O}_6$ for out of 68 samples, only 3 have proved satisfactory.

Under these circumstances we have been compelled, in order to protect our customers from the effects of the "Sale of Food and Drugs Act," to prepare Cream of Tartar of uniform quality and answering the requirements of the Pharmacopœia. This we now offer in 7, 14, and 28 lb. parcels, at 162/- per cwt., or 1/6 per lb. to a/c.

Those who do not find it convenient to buy direct may obtain it through wholesale houses, by ordering "Potassii Tart. Acid (Southalls')."
We continue to supply the Ordinary Best Commercial quality of Cream of Tartar, without guarantee, the present market price being, Cryst 145/-, Pulv. 147/6 cwt.

SOUTHALL BROS. & BARCLAY, BIRMINGHAM.

"SULFONAL RIEDEL"

MELTING POINT 125.5 C.

THE NEW HYPNOTIC.

Manufacturer: J. D. RIEDEL, BERLIN.

TO BE OBTAINED THROUGH—

Messrs. ALLEN & HANBURYS.

„ BURGOYNE, BURBIDGES, CYRIAX & FARRIES.

„ BURROUGHS, WELLCOME & CO.

Messrs. HODGKINSON, PRESTONS & KING.

„ WRIGHT, LAYMAN & UMNEY.

„ SOUTHALL BROS. & BARCLAY (Birmingham).

Messrs. WOOLLEY, JAS., SONS & CO. (Manchester).

And from R. W. GREEFF & CO., Sole Wholesale Agents, 29 Mincing Lane, London, E.C.

PRIZE MEDAL, International Health Exhibition, 1884. AWARD OF MERIT, International Medical and Sanitary Exhibition, London, 1881.

DIABETES. VAN ABBOTT'S GLUTEN BREAD,

AND ALL SUITABLE FOODS FOR DIABETIC PATIENTS.

VAN ABBOTT'S ELIXIR of SACCHARIN and SACCHARIN PERLES for SWEETENING TEA, COFFEE, &c., are perfectly harmless to DIABETICS and all to whom Sugar is injurious.

G. VAN ABBOTT & SON are Manufacturing GLUTEN CAKES, BISCUITS, &c., SWEETENED with SACCHARIN for DIABETIC PATIENTS.

Full particulars on application. PAMPHLET, with DIABETIC and other DIETARY TABLES, COOKING RECEIPTS, Price List, &c., Post Free.

G. VAN ABBOTT & SON,

DIABETIC, INVALID, & INFANT DIETETIC DEPOT, 6 Duke St. Mansions, Grosvenor Sq., London, W.

TELEGRAPHIC ADDRESS—"GLUTENS LONDON."

RAIMES' COMPOUND SYRUP OF HYPOPHOSPHITES

Contains the full amount of Hypophosphites, and is Neutral.

Price 2s. per lb. In Winchester Quarts, 1s. 10d. per lb.

MISTURA BISMUTHI AROMAT. CONC.

DOSE—HALF DRACHM.—Equivalent to Liq. Bismuthi B.P., 5j; Ether. Chlor., 15 m.; Tinct. Nacis. Vom., 8 m.; Morph. Mur., gr. $\frac{1}{2}$; Acid. Hydrocyanic. Dil., 2 m. (Coloured as Tinc. Card. Co.)

Price 9s. per lb. In Winchester Quarts, 8s. 6d. per lb.

RAIMES, CLARK & CO.
EDINBURGH.

SAMPLES SENT
ON APPLICATION.

RAIMES & CO.
YORK.

WYLEYS' GELATINE COATED OVAL PILLS.

The only Gelatine Coated Oval Pills of ENGLISH MANUFACTURE in the Market. Special List on application.

	Gross Botts		Gross Botts		Gross Botts
Bismuth. Pepsin. Co.		Ferri Hypophosph. Comp.		Hydrarg. et Arsenic. Iodid.	
(Wyleys'), B. Bismuth, Nit., 2		(Wyleys'). Each pill represents		(Wyleys'). Each pill equivalent	
gr.; Pepsin Porci, 1 gr.; Ferr.		1 fluid drachm of Syrup of the		to 5 minims of Donovan's	
Redact., 1 gr.; Strychnin, $\frac{1}{24}$ gr.	3/6	Hypophosphites... ..	2/6	Solution	1/8
Calcii Sulphid. $\frac{1}{10}$, $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, 1 gr.	1/8			Manganese Binoxid Pur., 1 gr.	2/6
Cascara Sagrada (Ext.), 2 gr.	2/-	Ferruginous (Bland's), 3 and		Phosphorus, $\frac{1}{80}$ Ext. Nuc.	
Ergotin. Comp.		5 gr	1/8	Vom., $\frac{1}{4}$ gr.	2/-
B. Ergotin, 1 gr.; Ferri Sulph.				Podophyllin Resin, $\frac{1}{3}$ gr.; Pil.	
Exsic., 1 gr.; Ext. Hellebor.,		Ferri Quininæ et Strych-		Rhei Co., 4 gr.	2/6
1 gr.; Ol. Sabinæ $\frac{1}{2}$ m.; Ext.		ninæ Phosph. (Wyleys'), re-		Potass. Permang., 1 gr., 2 gr.	2/-
Aloes Soc., 1 gr.... ..	3/-	presenting Easton's Syrup ...	3/-		

WYLEYS & CO., COVENTRY.

LONDON ADDRESS—1a BURY STREET, ST. MARY AXE, E.C.

SYMES & CO. LIVERPOOL

PHARMACEUTICAL CHEMISTS, EXPORT DRUG MERCHANTS,

IMPORTERS OF BRAZILIAN DRUGS, AMERICAN AND CONTINENTAL SPECIALITIES.

ORIGINATORS AND

MANUFACTURERS OF

OL. LAVAND. RECT.

Largely replacing the Mitcham Oil, 20/ lb.



OL. LIMONIS RECT.

Fine quality, keeps well. Reduced price 5/6 lb.

Hydrobromic Syrup of Hypophosphites.

LAC BISMUTHI.

Lac Bismuthi et Cerii, &c.

ACID. ACETIC. B.P., ACID. ACETIC. 1.040. Pure for Vinegar and Pickles
PEROXIDE of HYDROGEN, for Bleaching Feathers, Hair, Silk, Jute, Ivory, Bone, &c.
CRETA PRÆCIP. Very White, Soft, and Light.

PHOSPHORIC ACID, B.P. strength and concentrated, Pure and Free from Arsenic.

LIQ. FERRI PERCHLOR. FORT., B.P. Free from Arsenic, and Soluble in Spirit.

HYPOPHOSPHITES of LIME, SODA, &c. CYANIDE of POTASSIUM.

Ferri et Ammon. Cit., Ferri et Quininæ Cit., B.P., and other Scale Preparations.

DUNN & CO., Stirling Chemical Works, WEST HAM, LONDON.

C. R. HARKER, STAGG & MORGAN**WHOLESALE & EXPORT DRUGGISTS****MANUFACTURING CHEMISTS****DISTILLERS & IMPORTERS of ESSENTIAL OILS****STANDARDIZED AND GUARANTEED DRUGS AND PREPARATIONS FOR
HOME AND EXPORT TRADE.**

TEMPORARY PREMISES—

72 and 74 GOLDEN LANE, BARBICAN, LONDON, E.O.

REGISTERED ADDRESS FOR TELEGRAMS—"EDULCINE LONDON."

PAPAIN (FINKLER).The new DIGESTIVE FERMENT
combining the action of
PEPSIN AND PANCREATINE.

SOLE AGENT FOR THE UNITED KINGDOM AND EXPORT—

B. KÜHN, 36 St. Mary-at-Hill, LONDON.

USES.—INTERNALLY: In Dyspepsia and Gastralgia. Geo. Herschel, M.D. Lond., writes in the *British Medical Journal*, April 3rd, 1886:—"find it chiefly valuable in (1) the Chronic Stomach Catarrhs of Children, (2) Acid Dyspepsia, and (3) Severe Gastric Pain coming on shortly after eating." Recent experiments made by Prof. Finkler, and published in *The Lancet*, July 23rd, 1887, show that Papain digests far more energetically than best Pepsin, when the solution is concentrated as it exists in the human stomach.

EXTERNALLY: It has been used by Bouchut in cutaneous carcinoma, Rossbach for dissolving the false membranes of Diphtheria (see *Zeitsch. für Klin. Med.*, vi., H. 6), by Jacobi, of New York, for the same purpose, and recently Prof. Finkler himself has restored patency to an œsophagus occluded by carcinoma by the continuous administration of a solution.

PIL. PAPAIN (FINKLER).

For the convenience of dispensing PAPAÏN (FINKLER) these pills are made up in bottles of 25, 50, and 100 (one and two grains each), in convenient shapes for carrying in the pocket.

To be obtained through Messrs. F. NEWBERRY & SONS, 1 King Edward St., LONDON; Messrs. JAMES WOOLLEY, SONS & CO., 69 Market St. MANCHESTER; Messrs. McMASTER, HODGSON & CO., 121 and 122 Capel St., DUBLIN; and the Wholesale Druggists in the United Kingdom.

PUMILINE.THE ONLY PURE ESSENCE AND
EXTRACT OF SNOW-GROWN
PUMILIO PINES.

FOR GOUT, RHEUMATISM, SORE THROAT, CHEST AFFECTIONS.

SIR MORELL MACKENZIE wrote, December 9, 1887:—"I have much pleasure in stating that I have made use of Oleum Pumilionis during the last twenty-five years, that I consider it a most valuable preparation. It acts as an admirable tonic to the mucous membrane of the air passages in cases of chronic bronchitis and laryngeal catarrh. I am glad, therefore, to hear that the remedy is about to be used on a large scale, and I have no doubt the results will be highly satisfactory.

(Signed)

"MORELL MACKENZIE, M.D."



THE SNOW-GROWN PINUS PUMILIO.

PUMILINE ALONE, with the single exception of Pinol, possesses the physical and chemical properties which give it the faculty of being administered internally with **SAFETY**. It is, therefore, essential for Chemists to use Pumiline, as it is the only preparation obtained from snow-grown Pumilio Pines.

FOR TRADE PRICE LISTS, PAMPHLETS, ANALYTICAL REPORTS, &c.—

G. & G. STERN, 11 Billiter Square, LONDON, E.C.**HOUDÉ'S PASTILS
OF HYDROCHLORATE OF COCAINE.**

Through the insensibility which they produce, *Houdé's Pastils of Chlorhydrate of Cocaine* procure the greatest relief and soothe the pain in Sickness of the Throat, in Hoarseness, Extinction of the Voice, Laryngitis, Inflammation of the Throat, and Asthmatic Complaints.

They help to remove the Pricking and Titillation of the throat, strengthen the vocal cords, and are very useful in diseases of the Œsophagus and the Stomach, Sea-sickness, Gastritis, Gastralgia, Vomiting, &c.

DOSE.—Take 6 to 8 pastils per diem, according to age, and at least one hour before meals.

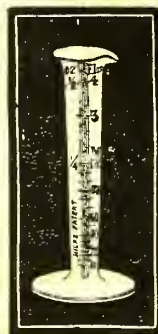
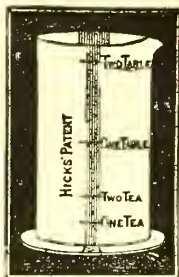
Manufactured by **A. HOUDÉ**, 42 Rue du Faubourg St. Denis, PARIS.

FRANCIS NEWBERRY & SONS, 1 King Edward Street, Newgate Street, London.



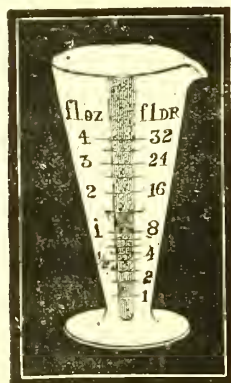
AWARDED
GOLD MEDAL.

ENORMOUS SUCCESS!



I. I. EXHIBITION,
LONDON, 1885.

WONDERFUL SALE
ALL OVER
THE WORLD.



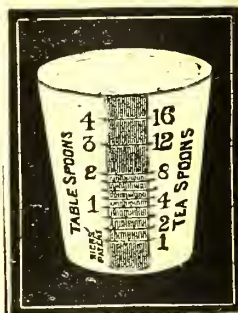
NEW PATENT OPAQUE GLASS MEASURES

For Domestic, Chemists', and Photographers' Use.

The advantage of these Measures over those of Plain Glass consists in their being made of Pure White Enamel Tubing, with the divisions and figures fired on in indelible black. They can therefore be read with the greatest ease in any li

SOLE MANUFACTURER:—

J. J. HICKS, 8, 9, and 10
HATTON GARDEN, **LONDON.**



To be obtained of all Wholesale Houses and Chemists. Price Lists on application

GLASS WOOL

For Filtering Acids, Alkalies and other Corrosive Liquids, in large or small quantities.

ASK FOR PRICES.

MAWSON, SWAN & WEDDELL,
NEWCASTLE-ON-TYNE.

MAWSON'S FILTERS

(IMPROVED PATENT).

All Filtering Medium now manufactured and tested on our premises.

THE MOST SIMPLE AND EFFICIENT FILTER KNOWN.

MAWSON, SWAN & WEDDELL,
NEWCASTLE-ON-TYNE.

HAWLEY'S RED BARK BITTERS.

From the best Indian Red Cinchona Bark, Flavoured.

In tall hook-shaped, white glass bottles, capsuled. Two sizes. Handsome coloured label in the front. Plain Label with directions at the back.

For full particulars of price, &c., see Hawley's Illustrated List of Counter Adjuncts, to be had on application.

SAVAR'S COCA WINE.

Introduced to the Trade in 1875.

CAN BE RETAILED WITHOUT A WINE LICENCE.

This Wine is made from selected Green Leaves, and contains all the active ingredients of the plant, the Cocain and the Ozonine being both held in solution.

In 6/0 Bottles (2,000 Leaves) 57/ dozen.

In 3/8 " (1,000 ") 33/ "

EVANS, LESCHER & WEBB,

60 Bartholomew Close, LONDON.

Liverpool: Montreal:

EVANS, SONS & CO. EVANS, SONS & MASON.

AGENTS:

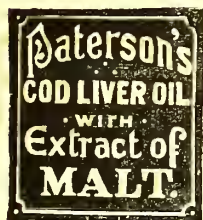
JAMIESON & CO., 263 George St. (opposite Bond St.), Sydney.

AS SUPPLIED TO THE INFIRMARIES

A CAREFULLY PREPARED EMULSION OF

PUREST COD LIVER OIL

WITH MALT EXTRACT.



Pronounced by leading Physicians to be the most valuable form of Cod Liver Oil ever produced. It is pleasant to take, and has no fishy smell or taste. There is no nausea experienced and it is greatly relished by Children and Invalids.

This valuable combination forms a

HIGHLY NUTRITIOUS FOOD.

It is many times more strengthening than any other form of Cod Liver Oil, and is simply invaluable for bringing the system up to par in all cases of Consumption and Wasting Diseases and General Debility.

The moderate price—

1s. 6d., 2s., and 3s. per Bottle, brings it within the reach of all.

GUARANTEED PURE.

PATERSON'S MANUFACTURING CO., LIM.

Manufacturing Chemists,

GLASGOW and LONDON.

Head Office: 12 BROOMIELAW, GLASGOW

CHRISTY'S DRUGS.

Special attention is called to the following successful introductions:

COATED SPRING BOUGIES or ANTROPHORS, for Gleet.

2 1/2 per cent. Thallin Sulphate and Cocaine ..	3/9 7/6 & 30/	per box.
2 1/2 per cent. Thallin Sulphate ..	2/3 5/ & 17/6	"
5 " " " ..	2/9 5/6 & 18/6	"
5 " " " ..	4/6 3/6 & 33/	"
Iodoform 5 per cent. ..	2/9 5/6 & 18/6	"
10 " " " ..	3/6 7/ & 22/	"
Tannic Acid 5 " ..	2/9 5/6 & 18/6	"
Sulphate of Zinc " ..	2/9 5/6 & 18/6	"

Boxes of 6, 12, and 50 Bougies (7-inch) respectively.

Bougies of greater length, or of other materials than the above, supplied at short notice.

FLUID EXTRACT OF MANACA for Rheumatism.

Over a dozen medical reports available.

Sold in 2, 4, 8, and 16 oz. bottles at 10s. per lb.

TINCTURE OF SIMULO for Epilepsy and Hysteria.

See report in "Lancet," 31st March, 1888, p. 617.

Sold in 8 and 16 oz. bottles, 8s. per lb.

PAPAIN AND COCAINE LOZENGES for the Throat.

In all affections of the mucous membranes, such as Ulcerations, Irritability, Hoarseness, &c., have given great satisfaction. Sold at 1s. per oz. or 14s. per lb.

FLUID EXTRACT and CORDIAL of SALIX NIGRA,

Introduced by us, and the most successful of Sedatives.

The Fluid Extract is sold at 5s. per lb., and the Cordial is put up in 2s. 9d. bottles, at 2s. 2d. to the trade.

TINCTURE of STROPHANTHUS MINOR as a DIURETIC.

The Strophanthus Minor as a diuretic is the most powerful, perhaps, of the Strophanthus genus, and its effects are to be relied on. Now in use in the hospitals. In bottles at 2, 4, and 8 oz. at 8s. per lb.

TINCTURE OF LYCOPODIUM FOR ENURESIS.

As originally supplied to the London Hospitals, and with which the first results were obtained. Specify Christy's Tincture: the use of the word "Ethereal" should be avoided, as such a tincture was never used. Supplied in bottles at 4, 8, and 16 oz. at 10s. per lb.

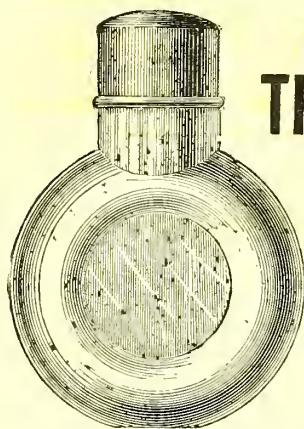
KOLA CHOCOLATE, THE NEW FOOD PRODUCT.

Contains more Caffeine than Coffee, is five times more sustaining and pleasing than Cocoa, &c. Invalids, weak children, dyspeptics, and brain-workers take it in preference to anything else. Sold in boxes of 1/4, 1/2, and 1 lb.; postage 2d., 3d., and 6d. extra respectively. Hospitals and Convalescent Homes supplied on special terms. Trade terms, 4s. per lb.

"Notes on the Therapeutics of New and Rare Drugs" sent on application to any member of the Profession.

T. CHRISTY & CO.

25 LIME STREET, LONDON, E.C.



EXTRAORDINARY CHEAP LINE!!! THE WATCH SMELLING-SALT BOTTLE

PLAIN OR FLUTED.

These Bottles are fitted with **BEST SCREW NICKEL CAPS**, lined with Washers, and are the most wonderful value ever offered. A trial order will prove this fact.

PRICE, IN BEST WHITE FLINT OR ASSORTED COLOURS, **12/-** PER GROSS, in not less than 1 gr. lots.
SPECIAL QUOTATIONS for Orders of FIVE GROSS and upwards.

E. A. HEARN & CO., Manufacturers of Glass Bottles of every description,

381-3 KINGSLAND ROAD, LONDON, E.

The annexed Illustration shows exact size of above-mentioned Bottle.

ROBERT GIBSON & SONS,
MANUFACTURERS OF HIGH-CLASS LOZENGES OF EVERY DESCRIPTION,
JUJUBES, BOILED SUGARS, COMPRESSED PELLETS, &c., &c.

Shipped through London Houses to all parts of the World. Price Lists sent on application to the Works,

ERSKINE STREET, HULME, MANCHESTER, ENGLAND.
LONDON DEPOT—1 AUSTRALIAN AVENUE.

HARTMANN'S HYGIENIC WOOD WOOL DIAPERS

Used in all the Principal Hospitals and Recommended by the Medical Profession.

For Home Use, Delicate Health, Accouchement, and for Ladies Travelling, they are *invaluable and indispensable*. They are Soft, Light, Antiseptic, and are supplied at the Actual Cost of Washing. Supplied by Chemists, Ladies' Outfitters, and Drapers.

Advertised at 1/- and 2/- per dozen. To Chemists, 9/6 and 19/- per gross. Pamphlets and Showcards on application.

The SANITARY WOOD WOOL CO., LIM., 11 HATTON GARDEN, LONDON.

ALFRED WHITE & SONS, LATE T. R. & A. WHITE, **MANUFACTURING CHEMISTS,**

Manufacturers of Acids, Æthers, Sp. Æther. Nit., Sp. Ammon. Arom., Liq. Ammon., Soldering Solution, &c., and preparations of Alum, Animal Charcoal, Antimony, Baryta, Bismuth, Strontia, Zinc, &c.

CASTLE STREET, SAFFRON HILL, E.C.

Works:—WEST DRAYTON, MIDDLESEX. Telegraphic Address:—"ETHER METHYLATED LONDON."

WILLOWS, FRANCIS & BUTLER

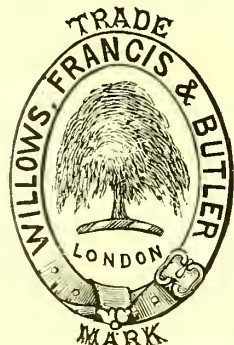
(Late BURGESS, WILLOWS & FRANCIS),

Wholesale and Export Druggists,

WHITE HORSE BUILDINGS,

101 HIGH HOLBORN, LONDON.

ESTABLISHED 1751.



DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS.

PRICE LISTS ON APPLICATION.

PETROLINA.

IMPORTANT REDUCTION IN PRICE.

Oak Kegs of 1 cwt. ...	4 $\frac{1}{4}$ d. per lb.	Self-opening Tins of 5 lbs. ...	5 $\frac{1}{2}$ d. per lb.
Oak Kegs of $\frac{1}{2}$ cwt. ...	4 $\frac{3}{8}$ d. per lb.	Self-opening Tins of 1 lb. ...	7 $\frac{1}{2}$ d. per lb.
Oak Kegs of $\frac{1}{4}$ cwt. ...	4 $\frac{1}{2}$ d. per lb.	Screw-cap Bottles of 4 oz. ...	2/9 per doz.
Self-opening Tins of 14 lbs. ...	4 $\frac{3}{4}$ d. per lb.	Screw-cap Bottles of 2 oz. ...	1/11 per doz.

NOTICE.

PETROLINA is a pure product of Petroleum deodorised by the action of steam and air and decolorised by filtration through bone charcoal, and there is absolutely no acid or alkali used in its manufacture.

ORDER PETROLINA THROUGH ANY WHOLESALE DRUGGIST OR DRY-SALTER.

E. A. DE PASS & CO., 3 Coleman Street, London, E.C. **SOLE AGENTS.**

H. BROOKS, PEEL & CO. [ESTAB. 1810.]
COLLAPSIBLE TUBE MANUFACTURERS,

Patentees and Sole Manufacturers of the PORTABLE METAL SPRINKLER STOPPER, and Dealers in GLASS BOTTLES FOR PERFUMERS AND OTHERS.

Steam Factories: 31 Lyme Street, Camden Road (Offices), and Bartholomew Road, Kentish Town, London, N.W.

COLLAPSIBLE TUBES OF ALL SIZES.

For Perfumes, Artists' Colours, Soaps, Cosmetics, Creams, Oils, Varnishes, &c. These Tubes are inexpensive and portable, and may be applied to many useful purposes besides those above mentioned.



SOLE MANUFACTURERS AND PATENTEES OF

THE PORTABLE METAL SPRINKLER STOPPER,

With Cork fitted thereon for bottles of any size, and having apertures of various dimensions, especially adapted for Perfumes, Hair Washes, Lime and Glycerine Essences, &c. These handsome stoppers give a character and finish to the most ordinary bottles to which they may be applied. Gilt or plain; and put up if required in handsome glass lid boxes, suitable for shop counters and show cases, at moderate prices.

THE "TORSION" PATENT SPRINKLER

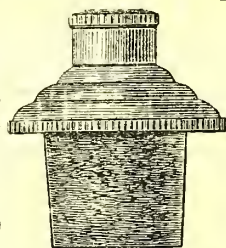
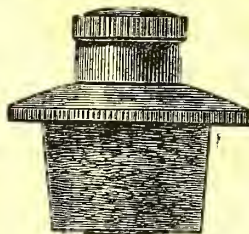
The two designs, Nos. 18A and 19A, are those to which we direct special attention, as sizes being in general use other sizes will follow promptly to meet all requirements, on which Caps with two or more holes will be introduced to meet the public taste.

Particular attention is called to the latest improvement in our Patent Metallic Stopper, the "Torsion." This New Stopper adheres to the design of the original patent, which has been universally acknowledged as an ornamental and inexpensive article for the Toilette, as possessing all the advantages of a "Permanent and Indestructible Stopper, suitable for Bottles of all Sizes and Shapes," with the additional security it affords, that the Cap can never be entirely unscrewed, consequently it cannot be lost. It is specially effective as a Sprinkler, while giving a more prompt and copious, yet economic, supply, through the improved action of the Cap. Such combined advantages, in an article of exquisite finish, have long been desired, and it is thus submitted for general approval, and its usefulness when tried will be appreciated by all.

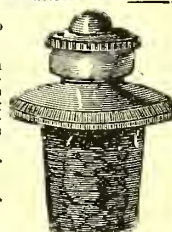
Illustrations, Price Lists, &c., can be had on application, or through any Wholesale House in town or country. All orders received direct will be promptly attended to.

CAUTION.—All Stoppers of our Manufacture are made of Pure Tin, and have the name of H. BROOKS & CO. stamped on the under side of the rim.

All Tubes are made of Pure Tin unless specially ordered of Mixed Metal, from the smallest size up to 13 in. by 2 $\frac{1}{2}$.



No. 1



No. 19a.

WITHOUT A RIVAL!

From the time Medicine was first discovered by the Ancients down to the present none ever made such progress as

BEECHAM'S PILLS.



They stand without a rival, and have by far the largest sale of any Patent Medicine in the World. This is a fact which every business man is bound to admit.

All Foreign Dealers will find BEECHAM'S PILLS the most Saleable Medicine in the Market.

The health-restoring and life-giving properties of these Pills are such as to increase their demand every year.

The words "BEECHAM'S PILLS, SAINT HELENS," are on the Government Stamp affixed to each box.

Prepared only and sold by the Proprietor, **THOMAS BEECHAM, ST. HELENS, LANCASHIRE, ENGLAND**, in boxes at 1s. 1½d. and 2s. 9d. each, with full instructions for use.

W. F. SMITH'S TASTELESS DANDELION ANTIBILIOUS PILLS,

Price, 1s. 1½d. and 2s. 9d. per Box.

[Registered.] TARAX. AND PODOPH. [Registered.]

A NON-MERCURIAL LIVER MEDICINE, specially useful to the habitually constipated, and safe for all ages.

Worthy of trade notice. Reliable, and rapidly increasing in public acceptance.

Urgent caution needed against injurious imitations.

PREPARED ONLY BY

[1]

W. F. SMITH, M.P.S.,
280 WALWORTH ROAD, LONDON.

To be had of the usual Houses at Home and Abroad.

DISPENSING BOTTLES & PHIALS

The following are our greatly Reduced Prices:—

CLEAR BLUE TINTED.

3 and 4 oz.	6/6 per gross.	12 oz.	11/6 per gross.
6 and 8 oz.	7/6 " "	16 oz.	15/6 " "

WHITE MOULDED PHIALS.

LONG OR SQUAT SERIES.

½ oz.	3/0 per gross.	1½ oz.	4/3 per gross.
1 oz.	3/6 " "	2 oz.	4/9 " "

Prompt attention to country orders. Packages 1/ each, allowed for if returned. Sample bottle sent free on application.

I. ISAACS & CO.

GLASS BOTTLE MANUFACTURERS,

25 Francis St., Tottenham Court Road, London, W.C.

Established upwards of 70 years.

Bankers, London and Westminster

GODFREY'S NEW PATENT

CHLORIDE OF AMMONIUM



INHALER

YIELDS a plentiful cloud of Neutral Vapour with little effort on the part of the patient.

Illustrated Prospectus, with the "History of Chloride of Ammonium as a remedial agent," free by post.

Price 7/6 Retail.

SHIPPERS AND LARGE BUYERS SUPPLIED ON LIBERAL TERMS.

SOLE MAKERS—

GODFREY & COOKE,

30, CONDUIT STREET, BOND STREET, W.

SINGLETON'S

250 YEARS'

BY FAR THE BEST
KNOWN REMEDY**GOLDEN EYE** REPUTATIONFOR ALL DISORDERS OF THE
EYES AND EYELIDS.**OINTMENT** REGD

Recommended and frequently used by DR. WARE, DR. ALEXANDER, MR. CRITCHETT, and other Eminent Oculists.

CAUTION.—None offered for Sale can be genuine unless the words **SINGLETON'S GOLDEN EYE OINTMENT** are engraved on the Government Stamp and round the Pot, and the Bill of Directions in which it is enclosed bears the name and address—

STEPHEN GREEN, 210 Lambeth Road, LONDON, S.E.

ALMILAJ.

The REMEDY by SPECIALITY. PREVENTIVE and CURATIVE.

For Cholera, Diarrhœa, Dysentery, Dyspepsia, Gastralgia, Colic, & all Catarrhal Affections of the Bowels. For Coughs, Colds, Influenza, Bronchitis, Asthma, & all Catarrhal Affections of the Lungs. For Hay Fever, Intermittent Fever, Ague, Neuralgia, & all ailments caused by adverse weather influences.

ALMILAJ is a concentrated medicinal preparation, composed of a specially-designed combination of vegetable products of long-tested and fully-established curative efficacy in the class of diseases above enumerated, and has been largely used in India with the most successful results. This preparation, as well as the name it bears, is the invention of Surgeon-General H. W. BELLEW, C.S.I., Bengal Army (retired), lately, for ten years, Sanitary Commissioner for the Punjab Province; Author of "The History of Cholera in India from 1862 to 1881," and of "A Practical Treatise on the Nature, Causes, and Treatment of Cholera" (TRUBNER & Co., London), &c., and has been specially designed as a Preventive and Curative Remedy in the class of diseases indicated, with the object of supplying a convenient and ready means of treatment, available for immediate use on the spur of emergency. For it is a well-known fact that the prompt and timely treatment of such diseases on the very first appearance of their symptoms—particularly in times of their epidemic prevalence—commonly suffices to check their progress altogether, especially when the action of medicine is aided by proper self-care and attention to clothing and diet, as is fully explained in the Practical Treatise on Cholera above mentioned.

For the purposes of the object stated, ALMILAJ is prepared in a concentrated liquid form, suitable for administration to sufferers of all ages, in small doses apportioned to age and strength without the necessity of any admixture whatever. The doses range from a drop or two for Infants, to forty drops, the full dose for an Adult. The Medicine is prepared with special provision to ensure the preservation of its composition and therapeutic properties for an indefinitely long period under ordinary care, and is put up in flat one-ounce acetonic green bottles, for convenience of portability about the person when travelling or away from home, &c. For facility of measuring the larger doses, each bottle is graduated in twelve parts, each part containing the full dose for an Adult.

Price 2s. 9d. per Bottle. Observe the word ALMILAJ is printed on the Government Stamp.

Sold by Chemists and Druggists everywhere, and Wholesale by Messrs. BURGOYNE & CO., 16 Coleman Street, London, E.C.

INJECTION DAY.

An Infallible Remedy and Certain Cure

IN ALL

URINARY DISCHARGES.

BOTTLES 2/6 EACH.

Depot: J. MUNDAY, Chemist, Cardiff.

London: F. NEWBERRY & SONS, 1 King Edward St., E.C.

Melbourne—FELTON, GRIMWADE & CO.; ROCKE,
TOMPSITT & CO. Sydney—ELLIOTT BROS.**DENOVAL'S MEDICINAL CAPSULES**

ARE THE BEST AND CHEAPEST.

Attention is called to the following articles:—

**MEDICINAL
CAPSULES.**

	Retail.
Peruvian Mixture Capsules.....	3/ & 2/
Matico Oil and Copaiba do.....	2/6
Santal Oil do. (36 in each box).....	4/
Cubeb Oil and Copaiba do.....	2/6
Copaiba, Cubeb Oil, and Santal Oil do.....	3/6
Copaiba Capsules, No. 0.....	1/6
" " No. 1.....	1/3
" " No. 2.....	1/
Copaiba, Alum and Cubeb.....	1/6
Compound Ferruginous.....	1/6
Male Fern Oil.....	3/
Cod Liver Oil.....	1/6
Castor Oil.....	1/3
Dénoual's Injection (to insure a radical cure in two days).....	2/9
ALL DRUGS WARRANTED TO BE GENUINE.	

JULES DENOUAL,
Carlton House, 4 New Cross Road, London, S.E.**SULPHATE OF QUININE**

(GOLD AND SILVER BRAND)

QUININE FACTORY AUERBACH

(DR. SEYFERTH).

Certified by Professor Fresenius, of Wiesbaden, as
equal to the best preparations of other marks.**DEUTSCHE GOLD AND SILBER
SCHEIDE ANSTALT**

(VORMALS ROSSLER),

FRANKFORT-ON-MAINE.

CYANIDE OF POTASSIUM,
IODIDE OF POTASSIUM,
BROMIDE OF POTASSIUM,
NITRATE OF SILVER,
CHLORIDE OF GOLD,
SULPHOCYANIDE OF BARIUM,
PHOTOGRAPHIC and PHARMACEUTICAL PURPOSES, of the
Best Quality.

IRON Reduced by HYDROGEN,
TARTARIC ACID,
HYDROCHINON,
STRONTIA,
MAGNESIA, and ALL OTHER
CHEMICALS for

Sole Agents—**OSCAR ANDREAE & CO.**

26 Great Tower Street, LONDON, E.C.

COCA WINE

(ERYTHROXYLON COCA).

FOR FATIGUE OF MIND AND BODY.

A NEW RESTORATIVE TONIC OF VOCAL, MENTAL, AND PHYSICAL POWERS.

Particularly useful in Hot and Enervating Climates.

June 28th 1888 25 New Walk Terrace York
Dear Sir I have been delighted with the
samples of Coca Wine which you have sent me
There is a minute animalcule which is destroyed by the
heat of summer, & which repairs on the application of a
drop of water. Armbrecht's Coca Wine has a singular
effect in reviving & restoring the exhausted energies of
the human economy & its sustaining & strengthening
properties are marvellous
Yours &c Allen
Lecturer on Anatomy & Physiology
at the City of York School of Medicine

THE RETAIL PRICE OF THIS WINE IS

4s. 6d. per Bottle, or 48s. per Dozen Box.

Coca Champagne Quarts	-	56s. per doz.	} La belled Vin mousseux de Coca très sec.
Coca Champagne Pints	-	33s. „	

For sleeplessness this Wine is almost always successful, and superior to Opiates,
 Chloral, and Bromides, &c., as it produces no reaction.

ARMBRECHT, NELSON & CO., 2 Duke Street, Grosvenor Square.

KERFOOT'S PEARL CACHOUS.

THESE beautiful little lozenges, perfectly spherical in form, weighing about 400 to the ounce, of exquisite flavour and great strength, are the most popular and perfect breath lozenges ever introduced; unlike the ordinary flat lozenges, these little PEARLS have no angles to attract dust and become soiled with a slight handling, consequently they can be carried in the purse or pocket, and are altogether more portable than ordinary lozenges.

The unique appearance and flavour of this novelty quickly ensured a large sale, and its success, as might have been anticipated, quickly brought to the front some worthless imitations, the sale of which can only result in disappointment to all concerned.

KERFOOT'S Pearl Cachous

are the only genuine PEARL CACHOUS: they are not only better looking, but are double the strength of the imitations, and buyers are therefore requested to order the original, and thus ensure a perfect article. They are elegantly put up in attractive one-pound bottles, and are an ornament to any Pharmacy. The following flavours are always in stock—

Rose	Jockey Club
Musk	Violet
Ess. Bouquet	Rondolitia
Lavender	Clove Pink

Price 2s. 9d. per lb. in 1-lb. bottles.

Eight bottles sent carriage free to any part of the Kingdom.

T. KERFOOT,
MANUFACTURING PHARMACEUTICAL CHEMIST,
Medlock Vale Works,
LONDON ROAD MANCHESTER.

IN WRITING MENTION THIS PAPER.

COMFORT FOR THE FEET.

Corns, hard or soft, and Bunions may be removed, and Enlarged Toe Joints may be reduced, by the use of the NEW FRENCH CORN PLASTER. The sole importer and proprietor is M. F. THOMPSON, HOMOEOPATHIC CHEMIST, 17 GORDON STREET, GLASGOW, from whom the Plaster may be had in Packets, by post, for Fourteen Stamps. Those who are troubled with the discomfort of Corns or Bunions will be glad to have attention called to this remedy, as it removes pain very speedily. It is a simple Plaster, which can be used without any inconvenience, as it takes up imperceptible room in the boot.

Wholesale, 9/ dozen, 4/9 half dozen, 2/6 quarter dozen.

All Post Free for cash with Order.

BEWARE OF ALL IMITATIONS.

MEUPHROSINE.

THE ONLY ABSOLUTELY
SAFE AND CERTAIN
CURE FOR

SLEEPLESSNESS

NERVOUS DISEASES
INDIGESTION AND SPASMS.

Guaranteed to contain no Opium, Morphia, Chloral, or other injurious Narcotics; no Bromide, no Alcohol; does not disturb the brain nor depress the heart. Price 2s. 9d. and 4s. 6d.

Of all Chemists, and of the Proprietors and Manufacturers,

S. RATTI & CO.

3 JEFFREY'S SQUARE, ST. MARY AXE, LONDON, E.C.

Read an Epitome on the Causes and Cure of Sleeplessness, &c., containing Medical and other Testimonials, and Analyst's Certificate (published by the above), price 6d. Given away with every bottle.

The Mormon Elder's DAMIANA WAFERS

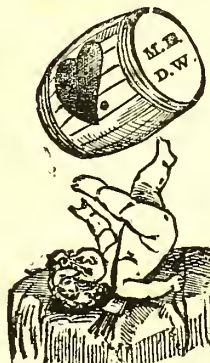
THE MOST POWERFUL
INVIGORANT
EVER PRODUCED.

Permanently restores those weakened by early indiscretions, imparts youthful vigor, restores vitality, strengthens and invigorates the BRAIN AND NERVES. A positive cure for IMPOTENCY and Nervous Debility. *Prompt, Safe, and Sure.* 4/6 per box, 6 for 22/6. Usual discount to the Trade. Send for Circular.

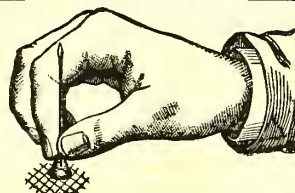
F. B. CROUCH,

202 Grand Street, New York City;
London Depot, 51 Strand, W.C.

Hovenden & Son, Sanger & Son,
Barclay & Sons, Edwards & Son, and
all Wholesale Druggists.



Trade Mark.



Registered.

THE
ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,
13 PALL MALL EAST, LONDON, S.W.
SOLE AGENTS FOR DR. WARLWORTH'S CALF VACCINE.

Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.
HUMAN VACCINE, from healthy children only, microscopically examined and sources quoted. Tubes, two-thirds full, 1s. 8d. each; Tubes one-third full and Lancet-charged Points, 1s. each; Pin-points, 1s. 1d. each. Eighteen Charged Small Points, 5s. Tubes two-thirds full (same as those mentioned above, but without source), in quantities for export, 4s. per 100 Tubes. Pin-points uncharged, 1s. per dozen. Vaccinations daily, between the hours of 12 and 3, by the Consulting Physician, at the uniform fee of a guinea. F.O.O.'s (including postage, and crossed London and Westminster Bank), with orders, payable to

EDWARD DARKE, Secretary.

Office hours, 10 to 4; Saturdays, 10 to 2.

The Chemische Fabrik auf Actien, vormals E. Schering, Berlin,
MANUFACTURERS OF SCHERING'S

PURE CHEMICALS

PARTICULARLY OF

ACID, GALLIC	Almost white needles	Freely and entirely soluble in alcohol or water
" PYROGALLIC	Bi-sublimed, white, bulky	Ditto ditto ditto.
" SALICYLIC (Kolbe's)	White, powder, crystallised and dialysed	Dissolves colourless in water or alcohol; purest for medicine.
" TANNIC	Lightest crystals	Dissolves almost colourless in water, alcohol, and ether.
" "	Powder and granulated	Dissolves freely in water, alcohol, and ether.
CELLOIDINE (Patent)	Gelatine plates... ..	Purest Pyroxylin; inexplusive.
CHLORAL HYDRATE	White cake and crystal	See Liebreich's, below.
CHLORAL HYDRATE (Liebreich's)	Transparent rhomboidals (facsimile of Dr. Liebreich's)	Will not decompose by age.
CROTON CHLORAL... ..	Shiny crystalline scales. (Powder form most objectionable)	Free from foreign chlorides.
GLYCERINE... ..	S.G. 1260, double distilled, brilliantly white, odourless; also lower S.G. and qualities	Free from lime, chlorides, metals; will stand severest chemical tests.
IODINE	Resublimed, fine scales	Purest.
ODOFORM, Absolut	Crystals and powder of soft touch...	Purest; made by electrolysis.
PARALDEHYD ... ..	... ..	Absolutely purest.
POTASS. BROMIDE... ..	Fine white dry regular crystals	Perfectly free from iodide, and the most free from chloride.
" PERMANGANATE	Large and small crystals	Chemically pure.
" IODINE	Fine white dry regular crystals	Apply Barytic and other tests. This will never change colour.
SODA SALICYLATE, and other Salicylates	White powder and crystals	Freely soluble in water and alcohol.

H. FINZELBERG, of Andernach-on-Rhine.

ERGOTINE, pure Dialysed ...	Brown colloid, purified by Dialysis	Free from all saline matter present in the ordinary Ergotine and extracts.
FERRUM OXYD. (5% Dialysed)	Transparent brown liquid, purified by Dialysis	Free from all saline matter. Diluted by ten times its weight of water, will stand the test of Nitrate of Silver.
PEPSIN PORCI (100%)	White, sweet, odourless powder ...	Freely soluble in water, not hygroscopic, and will not deteriorate; will dissolve (by Wittstein's test) 100 parts of white of egg and 250 parts of fibrine.

KALLE & CO.'S PATENT JODOL AND ANTIFEBRINE.

SOLE WHOLESALE AGENTS—

A. & M. ZIMMERMANN, 6 & 7 CROSS LANE, ST. MARY-AT-HILL, E.C.

For Quotations, &c., apply to Wholesale and Export Drug and Chemical Houses.

LONDON, 1862.



[BRONZE.]

PARIS, 1867.



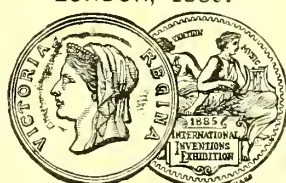
[SILVER.]

PHILADELPHIA, 1876.



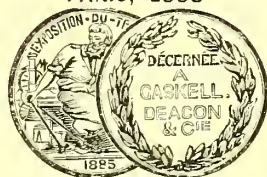
[HIGHEST AWARD.]

LONDON, 1885.



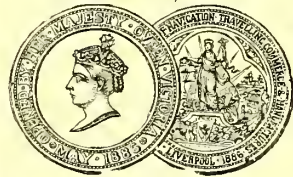
[GOLD.]

PARIS, 1885



[GOLD.]

LIVERPOOL, 1886.



[GOLD.]

ADELAIDE, 1887.



[HIGHEST AWARD.]

GASKELL DEACON & CO.

WIDNES, ENGLAND,

MANUFACTURERS OF

BLEACHING POWDER,

IMPROVED HIGH TEST

BICARBONATE OF SODA

(SODA BICARB. PULV.),

CRYSTAL CARBONATE

(The best preventative of Boiler Incrustation, and the purest and cheapest form of Washing Soda).

REFINED ALKALI	} From 25%
SODA ASH - -		to 58%.

CAUSTIC SODA, 60% and 70%, SODA CRYSTALS,

AND

CHLORIDE OF CALCIUM.

~~~~~  
TELEGRAPH ADDRESS—"WOODEND WIDNES."  
~~~~~

TELEPHONE No. 4, WIDNES.

"KAMPHORKALK"

A fresh Disinfecting Powder. It is a combination of soluble Chlorides and Camphor.

THE ADVANTAGES CLAIMED FOR IT ARE—

It is free from Poison. It is free from Smell (except a slight odour of Camphor). It is Soluble in Water. It is White in Colour. It is not injurious to any fabrics. It is Effectual and Cheap.

EXTRACTS FROM REPORTS.

Professor WANKLYN says:—"It is a most powerful disinfectant."

Professor REDWOOD says:—"I have made several experiments for the purpose of testing the efficacy of 'Kamphorkalk' (Cooper's Camphorated Disinfectant), and am satisfied that it possesses the properties claimed for it, and that it may with advantage be used in cases where infective disease prevails; and for arresting the decay of animal or vegetable matter from which noxious effluvia may emanate."

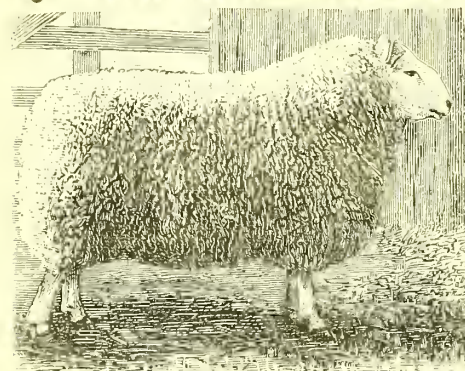
Sold retail in pretty decorated Canisters, 2 lbs., 1/; 6 lbs., 2/ each. In 28-lb. Kegs and 1-cwt. Casks much cheaper in proportion.

Special Wholesale Agents—Messrs. Sanger & Sons, 489 Oxford Street, London.

Proprietor and
Manufacturer—

ALFRED HORNBY, RICHMOND, SURREY.

QUIBELL'S SHEEP DIPS



AGENTS

WANTED.

Write
for Terms to

**QUIBELL
BROS.**

Newark-on-
Trent.

REVOLUTION IN THE FLY PAPER TRADE.

It must have been observed that for some time the public have become disgusted with the old poisonous fly paper, and have taken somewhat readily to a sticky sort of substitute.

The advertiser has perfected and patented a Fly Paper of this nature, which will certainly be the leading thing in this way in the future. It is a well got-up and effective paper, and is as cleanly to handle as a sheet of note-paper.

In the advertiser's own retail establishment last season the sale of this was simply enormous, as they were freely used by tradespeople (butchers, bakers, grocers, and confectioners), who would not dare to risk the danger from dead poisoned flies about their stock. Owners of horses and cowkeepers were delighted with them, as they spared the animals the torture from this source.

From the nature of the article it cannot very well be stocked by Wholesale Houses for distribution to the Retail Trade, but the Parcel Post will carry them direct from the maker, and Postal Orders will facilitate remittance.

The price is 4/6 per gross (carriage free), but where a large trade is developed more liberal terms will be given.

Send sample order for small lot, and while the season is on you are bound to do a big thing.

ADDRESS—

S. WILSON, CHEMIST, ST. HELENS, LANCS.

PINE'S DEVONSHIRE OILS

PRICE

1 dozen,	13/6	Per doz. net in
3 "	12/6	Wine Bottles.
6 "	11/6	CARRIAGE PAID.
12 "	10/6	Single Sample
		Bottle, 1/9.

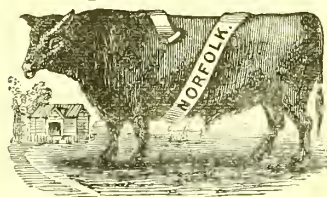
FOR HORSES, COWS, SHEEP, AND LAMBS.

THESE CATTLE OILS are prepared from the Original and Valuable Recipe of WILLIAM YOUATT PINE, and are unsurpassed, their great sale being a sufficient guarantee of their EXCELLENCE.

PREPARED AND SOLD WHOLESALE BY

WALTER GREGORY, 31 Fore Street, WELLINGTON, SOMERSET.

THE "NORFOLK" VETERINARY REMEDIES are the result of 40 Years' large practice,



And have an enormous sale in virtue of their superior quality and moderate price. Used on the Royal Farms, and by thousands of Cowkeepers, Flockmasters, and Farmers in the kingdom. The leading Remedies are The "NORFOLK" CONDITION DRENCHES for Cows, Bullocks, or Sheep; a sure preventive of Fever, Blood Diseases, and ordinary ailments; 9s. per dozen, 3 dozen 22s. 6d. The "NORFOLK" CORDIALINE, or PAIN KILLER, the most powerful Restorative known for Horses, Cattle, or Sheep in Colic, Calving, Lambing, &c.; 12s. per dozen, or 3 dozen 31s. 6d. The "NORFOLK" RED WOUND OILS, a rapid and sound cure for all Kicks, Cuts, Accidents, &c.; 3s. 6d. per pint, or 36s. per dozen. The "NORFOLK" BROWN SPRAIN OILS, for Lameness, Old Swellings, Rheumatism, &c.; 3s. 6d. per pint, or 36s. per dozen. Usual discounts to the Trade, and special terms for Shipping Orders. Manufactured for the Proprietor only by

F. SUTTON & CO., Chemists, NORWICH, ENGLAND.

GOVERNMENT DISINFECTANT

CARBOLIC POWDER (PINK) in 1 Cwt. 2 Cwt. CASKS 11b & 1/2 Packages.

CARBOLIC POWDER (PINK) in TINS 6 1/4 & 1/2 CARRIAGE PAID. CARBOLIC SOAP N° 1 & N° 2

CARBOLIC FLUID in 6 1/4 & 1/2 CARRIAGE PAID. CARBOLIC & GLYCERINE SOAP in 1/4 lb. TABS

FREE FROM POISON. AGREEABLE IN SMELL. THE GOVERNMENT SANITARY CO. LONDON E. TO BE HAD FROM ALL WHOLESALE DRUGGISTS.

G. VOGT, WHOLESALE & EXPORT DRUGGIST,

12 LAURENCE POUNTNEY LANE, CANNON STREET, E.C.

Finest French and English Drawn Essential Oils.—Insect Powder, guaranteed from closed flowers (Nine Prize Medals).—Fruit Essences.—Ethers.—Rose, Orange, and Elder Flower Waters.—Triple Extraits and Pomades.—Gums of all kinds.—

Hypophosphites—and all other Chemicals.

DETAILED PRICE LISTS ON APPLICATION.

ESTABLISHED OVER 140 YEARS.

BURGOYNE, BURBIDGES, CYRIAX & FARRIES, WHOLESALE & EXPORT DRUGGISTS,

**MANUFACTURERS OF
PHARMACEUTICAL PREPARATIONS,**

AND MAKERS OF

**Technical and Scientific Chemicals,
Alkaloids, &c.,**

IMPORTERS & DISTILLERS OF ESSENTIAL OILS,

DEALERS IN

**Druggists' Sundries, Chemical & Pharmaceutical
Apparatus, Surgical Instruments, Patent
Medicines, &c., &c.**

New remedies stocked immediately upon introduction. Preparations prepared according to the formulæ of all the known Pharmacopœias. Correspondence and Lists in all foreign languages.

SAMPLES AND SPECIAL QUOTATIONS UPON APPLICATION.

PRIZE MEDALS:

PARIS, 1867.

PARIS, 1878.

CALCUTTA, 1884.

EDINBURGH, 1886.

**Offices: 12 COLEMAN STREET;
Laboratories and Warehouse: 16 COLEMAN STREET,
LONDON, E.C.**

AGENTS FOR

PARKE, DAVIS & CO.'S Fluid Extracts, Pharmaceutical Preparations, &c., &c.

SPECIALLY
PREPARED

LOOFAH

PATENT
APPLIED
FOR.

By this process the raw Loofah is converted into a nice white soft material, which is capable of being made up into various articles.

SOCKS.

BATH GLOVES.

BATH BELTS.



MANUFACTURED OF LOOFAH, PREPARED AND BLEACHED BY A NEW SPECIAL PROCESS.

ELSTE'S LOOFAH SOCKS absorb all the moisture from rain, snow, or perspiration, keeping the feet warm and dry in winter and cool and comfortable in summer. They can be cleaned with soap and water, thus rendering them superior to any at present in the market.

ELSTE'S LOOFAH BATH GLOVES combine the utility of the rough Loofah sponge with the softness of Flesh Gloves, and are acknowledged to be the *non plus ultra* of perfection. Order a sample dozen and judge for yourself.

ELSTE'S LOOFAH BATH BELTS are the essence of comfort, and can be used with far greater ease than the Back Brush now in existence (see illustrations).

PRICES:

Elste's Loofah Socks, wide and narrow, per dozen pairs, 6s.

Elste's Loofah Bath Gloves, 6s. 6d. and 7s. per dozen single gloves.

Elste's Loofah Bath Belts, 13s. 6d. and 14s. 6d. per dozen.



USING THE BELT.



USING THE BRUSH

ALL ENTERPRISING CHEMISTS will do well to try a few of **ELSTE'S LOOFAH MANUFACTURES**, as a **LARGE SALE** is bound to result from showing them.

ARNO ELSTE & CO., 98^A CURTAIN RD., LONDON, E.C.

ROBINSON'S ORANGE WINE.

Specially prepared for Quinine Wine, does not deposit, will keep good in any climate, and well adapted for Export Trade. Supplied in Cask containing 9, 18, 30, 60, or 120 Gallons. Terms on application.

PHARMACEUTICAL SHERRY WINE.

This Wine is well adapted for Pharmaceutical Preparations, and is the strength ordered by the B.P. Price, in 6-Gallon Casks, 5/6 per gallon; in 2 Gallon Jars, 6/- per gallon, carriage paid. Casks charged 7/6, Jars 2/6, and allowed if returned. Cash or satisfactory reference to accompany order.

B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.

SILVER MEDAL
I.H.E. 1884.



THE ONLY
MEDAL AWARDED
FOR THIS
SPECIALITY

CHLORIDE OF LIME!
IN AIRTIGHT WATERPROOF & ODOURLESS PACKAGES
INVENTORS AND MANUFACTURERS **NATIONAL CHEMICAL CO., LONDON**

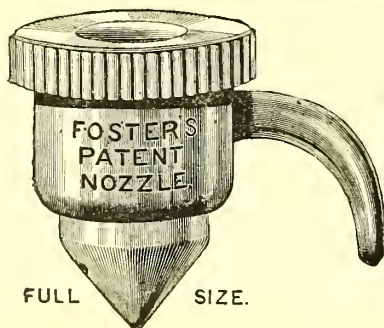
THE N. C. COS. PACKAGES HAVE STOOD THE TEST FOR MANY YEARS, AND CAN ALWAYS BE RELIED UPON TO GIVE SATISFACTION.

KEPT IN STOCK BY ALL WHOLESALE DRUGGISTS & C.
SEE THEIR PRICE LISTS

SILVER MEDAL
I.H.E. 1884.



BEWARE
OF OTHER SD.
CALLED AIRTIGHT
PACKAGES



FULL SIZE.

FIRE!! FIRE!!

FOSTER'S PATENT NOZZLE

For Converting Syphon Bottles immediately into

FIRE EXTINGUISHERS.

In Fancy Boxes containing 1 doz. Nozzles, 18/- each. Trade Discount, 33 $\frac{1}{3}$ per cent.

Handsome Showcard and Handbills given gratuitously.

Every room in every house should have a Syphon Bottle fitted with a Nozzle, ready for immediate use. It forms the Simplest and most Reliable Fire Extinguisher ever invented.

Price 1s. 6d. each.

BARNETT & FOSTER, Manufacturers,
"Niagara Works," 26^E Eagle Wharf Road, LONDON, N.

Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD, and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the Inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND



ONLY GENUINE.

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London	Frazer & Green,	Glasgow	Morson, T., & Son,	London
Allen, Hanbury & Co.,	"	Gale & Co.,	London	Newbery & Sons,	London
Baiss Brothers,	"	Giles & Son,	Clifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson	Leicester
Barron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John, & Co.,	"	Grimwade, Ridley,	London	Raines & Co.,	York
Bourne & Taylor,	"	Grindley & Son,	Chester	Raines & Co.,	Edinburgh
Corbyn & Co.,	"	Hearon, Squire & Francis,	London	Sang & Barker,	"
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sanger, J., & Sons,	London
Curling & Co.,	"	Hopkins & Williams,	"	Sim, James, & Co.,	Aberdeen
Curtis & Co.,	"	Hovenden, R., & Sons,	"	Smeeton, W.,	Leeds
Davy, M'Murdo & Co.,	"	Hunt & Co.,	Exeter	Southall & Co.,	Birmingham
Dobbin, W., & Co., Limited	Belfast	Hunt, A., & Co.,	"	Sutton W., & Co.,	London
Drew, Barron & Co.,	London	Johnson, J. H. & S.,	Liverpool	Tomlinson, Hayward & Co.,	Lincoln
Drew, B., & Alexander,	"	Langton, W., & Co.,	London	Treacher, Hodgkinson & Co.,	"
Dunn & Company,	"	Lynch & Co.,	"	Westrup, J. B.,	Kensington
Edwards, W.,	"	Mander, Weaver,	Wolverhampton	Westwood & Hopkins,	Lincoln
Evans, Gadd & Co.,	Exeter	Marsden & Sons,	London	Woolley, James,	Manchester
Evans, Lescher & Webb,	London	Maw & Son,	"	Wyleys & Brown,	Coventry
Ferris & Co.,	Bristol	Meggesson & Co.,	"	Yates & Co.,	London
Foulger, S., & Son,	London	Mackay, John, & Co.,	Edinburgh		

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

Sold in Bottles—1s. 1½d., 2s. 9d., 4s. 3d., and 11s. Usual Discount to the Profession.

SOLE MANUFACTURER,

J. T. DAVENPORT, Pharmacist,
88 GREAT RUSSELL STREET, BLOOMSBURY SQUARE, LONDON.

AYRTON & SAUNDERS,

Designers and Manufacturers

OF

High-Class Artistic Specialities

FOR CHEMISTS AND DRUGGISTS;

WHOLESALE AND EXPORT DEALERS IN

PATENT LINT, PLAISTERS, AND COTTON WOOL,

MEDICAL GLASS BOTTLES,

SURGICAL INSTRUMENTS, TRUSSES, &c.

HARD AND SOFT WOOD TURNERS;

MANUFACTURERS OF ROUND, SQUARE, AND OVAL BOXES,

IN PAPER, WILLOW, AND CHIP;

IMPORTERS OF

AMERICAN, GERMAN, & FRENCH BOXES;

AND GENERAL DEALERS IN

DRUGGISTS' SUNDRIES of every description.

SPECIAL QUOTATIONS TO LARGE BUYERS FOR CASH.

WAREHOUSES—

149 & 153 DUKE ST.



FACTORY—

62 PARR STREET,

LIVERPOOL.

All Letters, Orders, &c., to be addressed to the Firm, 149 DUKE STREET.



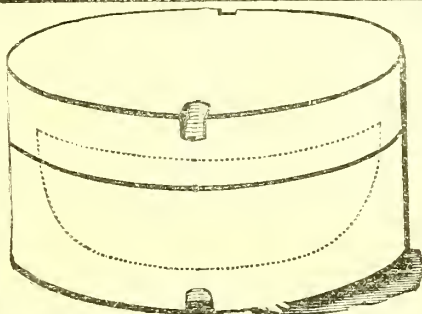
AYRTON & SAUNDERS will be glad to undertake Foreign Agencies and Commissions, and to buy and ship for Firms who have no representatives in England, and as they keep themselves thoroughly abreast of the times their friends can rely upon being well posted up in all the Novelties and Specialities that are being constantly introduced.

WILLIAM TOOGOOD'S SPECIALITIES.

WAREHOUSE AND SHOW ROOM,
BURLINGTON BUILDINGS,
HEDDON STREET, REGENT STREET, LONDON, W.

TOOGOOD'S IMPROVED PATENT EARTHENWARE COVERED POTS

*Are claimed to be the most perfect
and convenient yet offered to the Trade.*



Owing to the increasing demand for our Patent Pots, we have introduced a Special THIN Series for Dispensing.

These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

ORDINARY THICKNESS—

1 dr.	2 dr.	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	2	3	4	6	8 ounces.
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{2}{3}$	$\frac{2}{10}$	$\frac{3}{4}$	$\frac{4}{6}$	$\frac{5}{6}$ per doz.

THIN for DISPENSING—

$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8 ounces.
$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{2}{3}$	$\frac{2}{4}$	$\frac{3}{5}$	$\frac{4}{6}$	$\frac{5}{6}$	per doz.

TOOGOOD'S BURNT-IN POTS, FOR COLD CREAM, TOOTH PASTE, &c.

TOOGOOD'S GRADUATED MEASURES.

TOOGOOD'S BOXWOOD-TOP CORK BOTTLES

TOOGOOD'S MEXICAN SQUARES.

TOOGOOD'S CORN-SOLVENT BOTTLE.

TOOGOOD'S POISON BOTTLES.



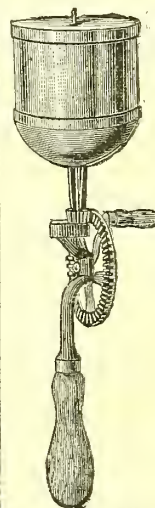
TOOGOOD'S IMPROVED PERCOLATORS.

Nos.	1	2	3	4	5
Capacity	12	25	66	100	160 ozs.
	2/	3/	4/6	6/	7/ each

SUPPORTS FOR ABOVE IN STAINED WOOD.

Nos.	1	2	3	4	5
	$\frac{1}{9}$	2/	3/	3/	3/6 each.

NORMAN'S PATENT PILL COATER



The cheapest and most efficient machine yet introduced, combining simplicity with portability, and enabling small quantities of pills to be coated with the same facility as large.

It speedily saves its own cost.

Price 3/6 each.

AUSTRALIAN AGENCY AND SAMPLES ROOM:

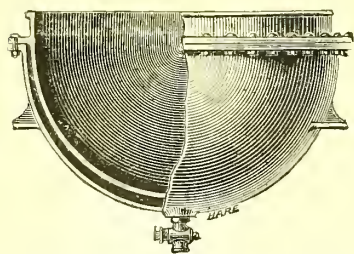
Mr. A. I. JOSEPH, 250 Pitt Street, Sydney.

Telegraphic Address: "TOOGOOD LONDON."

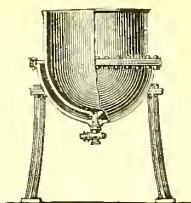
Telephone No. 3834.

William Toogood's Price Current of Glass Bottles, Measures, Earthenware, Druggists' Sundries, &c., will be forwarded post free upon application.

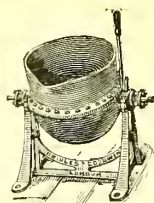
SPECIAL ATTENTION GIVEN TO SHIPPING ORDERS.



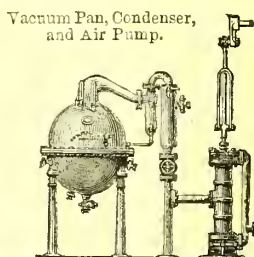
Steam Pan



Steam Pan.



Tilting Pan.

Vacuum Pan, Condenser,
and Air Pump.

MANUFACTURERS

Crushing and Grinding Machinery.
Boiling and Evaporating Machinery.
Paint and White Lead Machinery.
Food Preserving Machinery.
Fruit Preserving Machinery.

BRINJES & GOODWIN,
FIELDGATE ST., LONDON, E.
ESTABLISHED 1820.

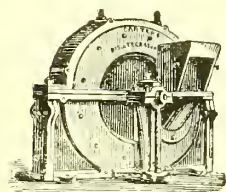
CARTER'S DISINTEGRATORS

Will Pulverise, Granulate, or Shred almost any Mineral, Vegetable, or Animal Substance.

NEARLY 1,100 IN USE

IN ALL PARTS OF THE WORLD.

For Grinding Sugar, Bark, Linseed, Ginger, Pepper, Spices, Salt, &c., this Machine is invaluable.
Made in 9 Sizes. Illustrated Catalogue may be obtained on application.



Samples of ANY Material will be Ground free of charge.

J. HARRISON CARTER, 82 MARK LANE, LONDON; and PARIS.
Telegraphic Address—Milling London.

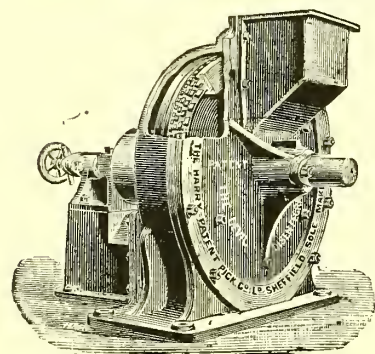
HAVE YOU SEEN THE "DEVIL" DISINTEGRATOR & MIXER?

This Machine will Grind to Powder, Granulate, or Shred any Material, Animal, Vegetable, or Mineral.

The following table gives some information as to the quantities of various classes of material the Machines will deal with per hour:—

MATERIAL	No. 1 Size Machine	No. 2 Size Machine	No. 3 Size Machine
Coal, Fine ..	10 cwt.	20 cwt.	50 cwt.
„ (for Briquettes)	20 „	40 „	200 „
Lead Ore ..	30 „	60 „	140 „
Slate ..	20 „	25 „	50 „
Bones (Dry), Fine ..	3 „	20 „	50 „
„ „ Medium	5 „	35 „	90 „
„ „ Coarse	7 „	40 „	110 „
„ (Green) ..	3 „	6 „	15 „
Hoofs and Horns ..	2½ „	8 „	20 „
Rags ..	—	2 „	5 „
Indian Corn ..	5 „	15 „	40 „
Wet Clay ..	—	20 „	50 „
Oak Bark ..	—	15 „	30 „

Purchasers should compare the quantities of material ground per hour with the capacity of other Machines. There is no other Grinder that will deal with anything like these quantities in the same time.



**CLOGGING
ABSOLUTELY
IMPOSSIBLE.**

No.	PRICE	Belt required	Diameter of Pulley	Revolutions per Minute
1	£30	3 inches	8 inches	1,000
2	£60	5 „	12 „	900
3	£90	7 „	14 „	800

The chief feature of this Grinding Machine is that it combines the centrifugal with the grinding action, and it can be adjusted to grind to any degree of uniform fineness while in motion. No Screens or Grates are required. Will Grind Wet or Dry Material, Clogging being impossible.

Samples of material forwarded to us may be passed through the Machine in the presence of intending purchasers or forwarded by rail. Larger sizes made to order.

SOLE MAKERS: **THE HARDY PATENT PICK CO., LD.,** Engineers and Mining Tool Makers, **SHEFFIELD**



OSCAR SUTTON & CO., **OS TOOTH BLOCK** **PRESTON, LANCASHIRE.**
 REGISTERED TRADE MARK.
O.S. TOOTH BLOCK, "The Best and Safest Dentifrice."

We have arranged with a first-class Die-sinker to supply us with a large quantity of name-plates, at a uniform charge of seven shillings each, irrespective of the number of letters required. You can now have your Name, Business, and Address stamped on each Block, at no extra charge beyond the cost of name-plate, seven shillings, as above.

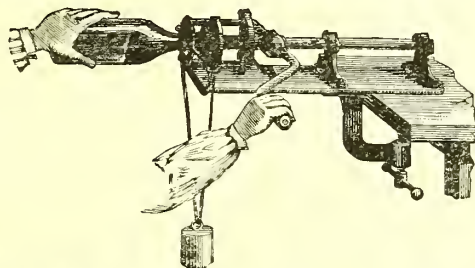
Orders received through any of the leading Wholesale Houses. Orders direct to us must in all cases be accompanied by a remittance.

One customer, residing in a town of less than 10,000 inhabitants, has just been supplied with the eighth gross, specially stamped.

O.S. Tooth Block, in Patent Metallic Box, retail 1/- each 7/- per dozen.

NEW CAPSULING MACHINE

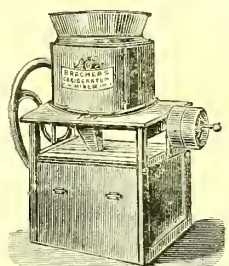
The only Machine
 which leaves no crease
 or pleat on the
 Capsule.



Can be fixed to any
 Counter.
 A single pull of the lever
 is sufficient
 to fix the Capsule.

Patentee—**C. MELIN, 37 Crutched Friars, LONDON, E.O**

THE GREAT DIFFICULTY SOLVED!



To Manufacturing Chemists, &c.

*How to Grind Crystals, Starch, &c.
 How to Reduce Lumpy Powders.
 How to Mix Many Ingredients in
 various proportions and produce
 a Perfect Blend with great ra-
 pidity!!* [1]

At one
 Opera-
 tion!

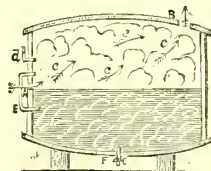
BRACHER'S PATENT

Trade "DESIDERATUM" Mark.

Mixer and Drug Mill Combined

BRACHER & CO., West Hill, WINCANTON.

SHOW ROOMS:—LONDON—100 Houndsditch; MANCHESTER—
 24 Corporation Street; WOLVERHAMPTON—2 Cleveland Street.
 All communications to WINCANTON.



NEW METHOD OF MAKING VINEGAR,
 BY THE REVOLVING APPARATUS
 (Michaelis' Patent).

For further particulars

See the Chemists' and Druggists' Diary, 1884, page 274,
 OR APPLY TO

PAUL ROTHERMEL,
 105 (late of 27) LEADENHALL ST., LONDON

JAMES DALE & SON,



COPPERSMITHS & ENGINEERS.

Offices—195 Upper Thames Street, E.C.

Works—EMERSON STREET, SOUTHWARK, S.E.,

LONDON.

JAMES DALE & SON LONDON

THE HUSK & SCOUR
IN LAMBS & CALVES
CURED BY
THE DEVONSHIRE
COMPOUND.

A distinct preparation
from the Devonshire Oils,
pronounced to be a
sovereign remedy which
never fails to cure this
deadly disease.

In Bottles, 2/-

ESTABLISHED
1830
FOR CATTLE
HORSES
COWS, CALVES
SHEEP, LAMBS
DOGS &c
Both
for Discharge
and inward
Use
MANUFACTORY
WELLINGTON, SOM.

CORNER'S PINE'S



SOLD
EVERYWHERE
THE GREAT
REMEDY
FOR ACCIDENTS
AND ANIMAL
DISEASES
Supplied by all
Wholesale
Houses

CORNER'S FAMILY
EMBROCATION
SHOULD BE USED
ON THE CHEST FOR
MEASLES.

Cures Sore Throats, Colds,
and Pains in the Chest,
Rheumatism, Lumbago,
Scalds, Burns, Chilblains,
Sprains, &c., &c.

1s. 1½d.

SEE THOUSANDS OF
TESTIMONIALS

REGISTERED TRADE MARK, "DEVONSHIRE."

BEWARE OF FRAUDULENT IMITATIONS.

BOORD & SON,
RECTIFYING DISTILLERS & WINE MERCHANTS,
ALLHALLOWS LANE
and
BARTHOLOMEW CLOSE, } **LONDON, E.C.,**

OFFER LOWEST QUOTATIONS, ON APPLICATION, FOR

FINEST RECTIFIED SPIRITS OF WINE

Methylated Spirit and Finish; Finest Orange Wine, Sherries,
and Malagas for Medicated Wines.

JONES & COMPANY,
METHYLATED SPIRIT MAKERS,

Regent Wharf, Copperfield Road, Mile End, London, E.
FROM RATCLIFF.

SAMPLES AND PRICES UPON APPLICATION.

BURROUGHS
Best Cale St.
Distillery,
Methylated
CHELSEA,
S.W.
AT LOWEST PRICES.
also Best
Miscible
Naphtha
FINEST WOOD NAPHTHA.
JAMES BURROUGH
LONDON, S.W.

PURE
SPIRITS OF WINE.

60 c.p., 20/3 per gall.; 56 c.p., 19/9 per gall.

1/ per Gall. Discount for Cash with order.

Further allowance for quantity. **STEAM STILL ONLY.**

GEORGE PHILLIPS & CO.,
ST. ANDREW'S DISTILLERY, CLERKENWELL RD.
LONDON, E.C.

W. H. B. REFINED
W. H. B. WHITE } **BEESWAX.**

Bernard Dyer,
B.Sc. (Lond.), F.C.S.,
F.I.C., Analytical
and
Consulting Chemist.

Laboratory,
17 Great Tower
Street,
London, E.C., Nov. 25, 1886.
I have analysed a cake of Wax stamped
W.H.B. sent to me by a London House
on behalf of Messrs. W. H. Bowdlear &
Co. of Boston, Mass., U.S.A. It consists
of pure bleached beeswax unmixed with
paraffine, fat, or other of the various
materials with which beeswax, and
especially white wax, is commonly adul-
terated.

Bernard Dyer, B.Sc., F.C.S., F.I.C.,
Member of the Society of Public Analysts.

CABLE ADDRESS—"BOWDLEAR BOSTON."

Our goods may be obtained in single
case lots of any of the leading
Wholesale Druggists in the Northern
and Midland Counties, and of
LOFTHOUSE & SALTER, Hull;
COLTHURST & HARDING, Bristol;
GOODALL, BACKHOUSE & CO., Leeds;
GLASGOW APOTHECARIES COMPANY,
Glasgow; OLDFIELD, PATINSON &
Co., Manchester.

We will deliver our Goods in 5-cwt.
lots ex quay, in any City which is
the Terminus of a Steamship Line
throughout the Kingdom.

W. H. BOWDLEAR & CO.,
147 Pearl Street, BOSTON, MASS., U.S.A.

W. CLARK'S SPECIALITIES FOR HOUSE, STABLE, & FIELD.



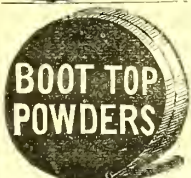
BOOT TOP FLUID,

For cleansing and preserving Boot Tops, totally eradicating all stains, and restoring their original colour.

Made in five colours—White, Light Brown, Nut Brown, Mahogany, and Pink.

BOOT TOP POLISH

Is a cream to be used after the Fluid to polish the Top. It also nourishes the Leather.



BOOT TOP POWDERS.

IN ALL COLOURS.

These Powders have been before the public for 30 years, giving the highest satisfaction, keeping Boot Tops equal to new. These Powders never turn Black.



SADDLE PASTE.

This preparation is for softening and preserving all kinds of Saddles, Bridles, Driving Reins, and every description of Brown Leather. It cleans, softens, and imparts a handsome appearance.



BREECHES PASTE.

This Matchless Paste for Leather, Kersey, and Cord Breeches, &c., will be found far superior to any that has ever been offered to the public; it will cleanse and beautify, rendering them soft and pliable; does not require rubbing, and will not rub off. Warranted perfectly free from dust, and needs but one trial to prove its superiority over all others.



WATERPROOF HARNESS BLACKING.

Neither requires oil, dye, or any other preparation; and it is the only one ever perfected for preserving, rendering supple, and giving

A POLISH, EQUAL TO PATENT LEATHER,

to all kinds of Black Leather Harness, Carriage Heads, Aprons, &c.

None other is used in the Queen's Establishments.



METROPOLITAN POLISH.

For restoring and preserving all kinds of Patent, Enamel, and Morocco Leather; also Brown Leather Boots, &c. It renders them perfectly elastic. It will not attract heat. Likewise for cleaning and restoring Oil Paintings, Carriage Panels, &c. For French Polished, Japanned, and Varnished Goods it will be found unequalled.



NE PLUS ULTRA RAVEN JET FRENCH VARNISH.

WARRANTED NOT TO CRACK.

It is entirely free from any offensive smell common to most polishes. It instantly produces the most brilliant polish on the ordinary Walking as also Patent Dress Boots and Shoes for morning or evening wear.



ELASTIC WATERPROOF VARNISH.

For Hunting, Shooting, Fishing, or ordinary Walking Boots, Coach and Cab Heads, Phaeton, Gig, Cart Aprons, &c., especially old Enamelled Leather, and for all kinds of India-rubber Goods, particularly for Goloshes. It will not crack or wear brown. Applied to the soles of boots and shoes they will be proof against wet.

HOPLEMUROMA.



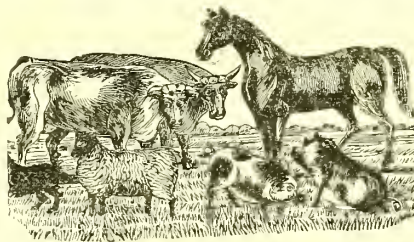
Cures horses' brittle and shelly feet, sand cracks, seedy toes, diseased frogs, fever, quittor, rapidly increasing the growth of the Horn, and preventing horses throwing their shoes, making the hoof tough, and prevents all lameness. This preparation is warranted to cure all the above diseases, has been before the public for 30 years, and never known to fail. No owners of horses should be without this invaluable preparation.

MARVELLOUS EMBROCATION.

FOR HORSES AND CATTLE.



Takes away all soreness, and gives immediate relief and speedy cure in cases of lameness, bruises, sores, sprung sinews, sprains, enlarged joints, overreach, splints, curbs and wind galls, also cuts, broken knees, wrung shoulders, sore backs, chapped heels, sore throats, influenza, and rheumatism.



HORSE BALLS—

Fever, Cough, Diuretic, Astringent, Condition, and Alterative.

COLIC DRAUGHTS.

For Flatulent and Spasmodic Colic.

FEVER DRAUGHTS.

For Shivering, Dulness, &c.

CRACKED HEEL LINIMENT.

For Horses.

HEALING LINIMENT.

For Scratches, Cuts, &c.

BLISTERING OINTMENT.

For Splints, Spavins, &c.

CONDITION MEDICINE

ALTERATIVE POWDER.

FEVER POWDERS.

Prepared by W. T. CLARK, M.R.C.V.S.L.

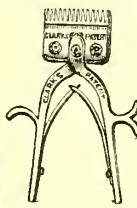
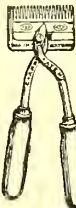
MARVELLOUS EMBROCATION.

FOR DOMESTIC USE.



Cures Bronchitis, Sore Throats, Rheumatism, Lumbago, Wheezing in the Throat or Chest, Sciatica, Sprains, Bruises, &c.

HORSE CLIPPERS.



No. 1.

No. 2.

No. 4.

ping to be performed by one man only.

No. 4.—A two-handed instrument, with the Patent Grasshopper Springs over the plates. This improvement renders the machine simply perfect, producing a softness and ease of motion not to be surpassed.

W. CLARK, 528 OXFORD STREET, W.

MEDICATED TOILET PAPER

Retails at 1/-

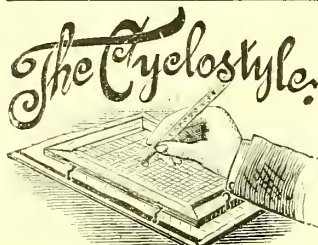
Per Packet of 500 sheets,
5 by 7½, in neat case;
Or per Roll, 5 inches
wide, in neat canister.

On contact with
water this paper
emits a pleasant odour
of "SANITAS," which
DISINFECTS and DEODORIZES
everything.

THE TRADE SUPPLIED BY

BARCLAY & SONS, Lim., W. EDWARDS &
SON, F. NEWBERRY & SONS, and S. MAW,
SON & THOMPSON, London.

Sole Proprietors, THE HYGIENIC PAPER CO., 2 Queenhithe, Upper Thames St., London.



IS THE BEST SYSTEM
known for Printing
Circulars, Notices,
Price Lists, &c.

Simple, Rapid, Cleanly,
Durable, and ex-
tremely Cheap in
Working.

COPY OF OPINION OF A USER.

Gentlemen.—I have had a fair amount of experience in the use of various
printing machines, and prefer the Cyclostyle to any other that I have used. *The
Stencil is easily written, and the printing is especially clean and easy to work.*
I am, yours faithfully, ALEXANDER GROVES, Grocer, &c.
Prices of Apparatus complete. Note size, 21/; Letter size, 27/6; Foolscap, 31/6

THE "WORLD" TYPE WRITER

Is the latest and by far the simplest Type Writer yet introduced.
It is absolutely simple and requires no learning.
After a little practice a speed of 40 words per minute can be obtained.
It prints very clearly, and different styles of Type can be supplied.
Prints on Post-cards, Envelopes, or Tags.
Weights 4 lbs., and is only 12 in. long by 6 in. wide, therefore is
very portable.
Re-inking of Type is extremely simple.
Chemists will find the Type Writer very useful for Labels, &c.
It is, in fact, a strong, perfect Type Writer, and only One-third the
price of any other similar Machines.

Price £2 2s. 0d. complete.

SPECIMENS OF WORK AND TESTIMONIALS ON APPLICATION TO THE
FACSIMILE APPARATUS CO.,
79a GRACECHURCH STREET, LONDON, E.C.

PATRONISED BY HER MAJESTY.

BARBER'S ORIGINAL CRIMSON MARKING INK,



WHICH IS CHANGED BY HEAT TO A JET BLACK:

Put up for Retail Sale in 6d., 1s., 2s., 2s. 6d., and 5s. Bottles.

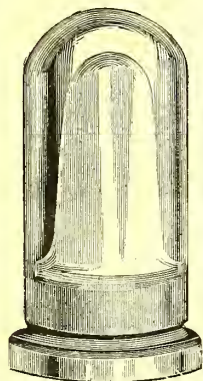
Also Barber's Concentrated Liquid COCHINEAL, for Colouring Jellies, Custards, &c.
Put up in 6d. and 1s. Bottles.

MANUFACTURED ONLY BY THE PROPRIETORS—

G. BARBER & CO., Club Moor, LIVERPOOL.

Can be obtained through any of the Wholesale Firms in Great Britain, or from FELTON, GRIMWADE & CO.,
Melbourne; ELLIOT BROS., Sydney and Brisbane; KEMPTHORNE, PROSSER & CO., Dunedin and
Auckland; FELTON, GRIMWADE & CO., Wellington; or direct from the Manufacturers—G. BARBER
& CO., Club Moor, Liverpool, England.

SHIRLEY'S A1 BRAND MENTHOL.



QUITE NEW.

The Menthol is fixed on a China Stopper, which is covered with a glass shade; always clean.

Buyer's own name printed round the China if order is given for a large quantity.

Doz. A Dummy Cone, 9 inches high, given free with all orders of 20s., or two if 30s. order is placed.

GOOD SELLING PATTERNS.

No.	Description.	Price per doz
1	6d. Glass Bottles with Metal Screw Cap	3 3
1b	6d. Blue Ditto Ditto Ditto	3 4
9a	1s. or 1/6 Boxwood, Skittle-shaped	7 6
9c	1/6 or 2s. Do. Do.	9 6
9s	6d. or 9d. good value, Do.	4 0
17L	1s. Draughtsman Shape, Boxwood only, extra large	6 6
17s	6d. Ditto Boxwood	4 0
19	6d. Boxwood, Egg Shape, on elegant Card	3 0
21a	1s. Menthol on Boxwood stopper, covered with glass shade, very attractive, 12 in a box	6 3
23a	6d. Ditto 12 in a box	3 6
24	6d. Boxwood, Bottle Shape, very attractive	3 6

BOUND TO SELL.

Menthol in Boxwood, with views of London on one side of the case, beautifully painted—St. Paul's Cathedral, Westminster Abbey, Windsor Castle, Tower of London, Westminster Bridge, Houses of Parliament.

A NOVELTY

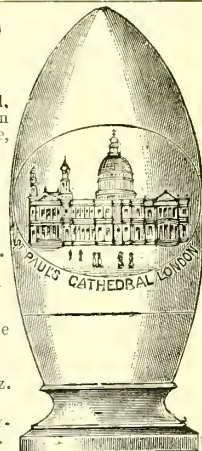
and adds greatly to the value.

No extra is charged.

11a. 6d. .. 3/6 per doz.

14a. 1s. .. 6/3 "

Please state Views required when ordering.



Chemist's own name printed on back of the boxes without extra charge, provided a gross is ordered. This opportunity of advertising yourself and increasing your trade should not be lost.

ORDER AS A1 BRAND.

SHIRLEY'S 2nd QUALITY, PUT UP FOR THOSE WHO WANT CHEAP GOODS.

	Per Dozen	Per Gross		Per Dozen	Per Gross
2d. No. 100.—Polished Willow Box	1/5	13/	4d. No. 103.—Boxwood Pedestal (large)	2/9	27/
3d. „ 101.—Willow Acorn	1/10	17/	4d. „ 104.— „ Barrel shape	2/9	27/
3½d. „ 102.—Boxwood Pedestal	2/4	24/	6d. „ 105.— „ Button shape	3/4	34/

These prices are net, and the boxes have not the printed directions on them.

DON'T MAKE A MISTAKE!!!

The following Sell Well and bear a Good Profit:—

EAU DE COLOGNE

In flat watch-shape Bottles, with Nickel Cap.

Each Bottle is neatly labelled, and contains an ounce of best quality Perfume.

A GOOD SELLING LINE.

4s. per doz., 12 in a Box.

FULLER'S EARTH

Attractively put up in cardboard boxes, with label (3 colours).

Can be had either White Precipitated, as preferred by many, or ordinary Prepared Fuller's earth.

Price, 3s. per dozen.

Special terms for large quantities.

Order as A1 Brand.

TOOTH SOAP.

WHITE ROSE.

Nicely got up in a hinged patent Box (Jahncke's), neatly labelled.

The Soap itself is highly scented and fragrant.

4s. per dozen.

FUMIGATING RIBBON.

Elegantly put up in round blue and gold Boxes.

Indispensable to the Sick Room, as, after being lit a few minutes, a vapour ascends perfuming the whole room.

3s. 6d. per dozen.

A Show Stand given away with an order for 3 dozen, together with two yards of Ribbon to practically show its perfume.



SMELLING SALTS.

The best Bottle of the Season: it has a good base, and stands well; is attractively labelled, and enclosed in a hinged outer. Filled with strongest ammonia, and agreeably perfumed.

Price, 2s. per dozen, 20s. per gross.

Special quotations for 5 or 10 gross lots.

A similar Bottle, only stoppered, 4s. per dozen. 43s. per gross.

LOOFAH GLOVES, SOCKS, & BATH BELTS.

(Special Agent for Elste's Patent.)

JUST THE THING FOR THE SUMMER.

LOOFAH SOCKS, wide and narrow	6/ per dozen pairs
„ GLOVES, Loofah and White Turco, or Double Loofah	6/6 per single dozen
„ „ Loofah and Coloured Turco	7/ „
„ BELTS, Loofah and White Turco, or Double Loofah	13/6 „
„ „ Loofah and Coloured Turco	14/6 „

ARTHUR W. SHIRLEY, 30 Paternoster Square, LONDON, E.C.

THE ONLY PERFECT ENEMA OBTAINABLE.

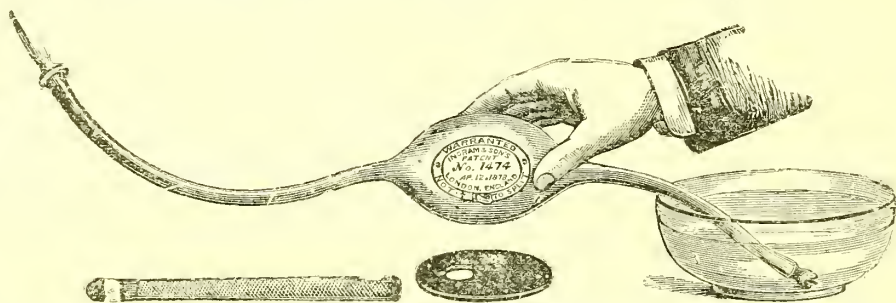
INGRAM'S IMPROVED HIGGINSON ENEMA AND SYRINGE APPARATUS

(BY ROYAL LETTERS PATENT).

Made without Seams or Ribs by our Patent Process of dipping in a solution of India Rubber, thus adding great strength and durability.

NONE GENUINE UNLESS STAMPED WITH NO. OF PATENT 1474.

CAUTION.—The only
Enema made without
Ribs.



All Imitations may be
detected by the Ribs on the
Surface, and are always
liable to split.

WARRANTED NOT TO SPLIT.

A.—Metal Pin Valve.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is perfectly smooth on the surface, will not become hard or sticky, will not leak, and will not admit air while injecting or refilling. Specially prepared to resist the heat of tropical countries.

The great superiority of INGRAM'S IMPROVED PATENT SEAMLESS ENEMA over all others has given rise to VARIOUS IMITATIONS, and it has become imperative that the Patentees should, in order to PREVENT DECEPTION, explain the PROCESS OF MANUFACTURE OF THEIR ENEMA and the MODE OF MANUFACTURE OF IMITATIONS thereof, as they have UNDENIABLE PROOF that INFERIOR ENEMAS are positively BEING SOLD as their "ADVERTISED" PATENT SEAMLESS ENEMA.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is made by a NEW PATENT PROCESS, viz. : By repeated dipping in a solution of India Rubber until the required substance is attained. This process adds greatly to its STRENGTH and DURABILITY, and, at the same time, dispenses WITH ALL SEAMS, which, as is well known, are weak points in an Enema. This improved mode of manufacture (the result of long study and experience) enables the Patentees to produce a PERFECT ENEMA WITHOUT SEAMS, thus overcoming the great fault to be found in ALL other Enemas, viz. : SPLITTING AND LEAKING, which has always been a source of trouble.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is fitted with IMPROVED VALVES, which prevent the admission of air with the fluid and CAN at any time BE REPAIRED, if necessary.

CAUTION.—Imitations of INGRAM'S IMPROVED PATENT SEAMLESS ENEMA are made of several pieces of Sheet India Rubber, which are cemented together and shaped in a mould, thus PRODUCING RIBS ON THE SURFACE, and ENEMAS SO MANUFACTURED ARE ALWAYS LIABLE TO SPLIT AND LEAK AT THE SEAMS, AND THUS TO BECOME QUITE USELESS.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA may be distinguished from ALL IMITATIONS by its ENTIRE FREEDOM FROM RIBS OF ANY DESCRIPTION on its surface, and by having an IMPROVED METAL PIN VALVE at the suction end A ; and it is acknowledged to be the ONLY PERFECT ENEMA OBTAINABLE.

Patented in England, No. 1474, April 12, 1878; in France, No. 126,909, October 11, 1878; and in America, No. 212,939, March 4, 1879.

To be obtained of all Surgical Instrument Makers, Druggists' Sundriesmen, Chemists and Druggists, in the three following qualities:—

No. 1a. Highly Polished, in Red, Green, Blue, Black, or White.

No. 1b. Unpolished, in Red, Green, Blue, Black, or White.

No. 2. Unpolished, in Drab only.

Favourably noticed in "British Medical Journal," December 13, 1879; in the "Lancet," January 3, 1880; and in "British Medical Journal," September 30, 1882.

PURE CRUSHED LINSEED.

Contains all the Oil. The finest procurable.
Prepared from specially selected seeds.

Sold in 1 cwt. bags, 17s. per cwt., bags free; or in 28 and 56-lb. parcels
18s. per cwt.; also in $\frac{1}{2}$ and 1 lb. tins and parchment packets.

IDRIS & CO.

MANUFACTURING CHEMISTS AND MINERAL WATER MAKERS,
ASCHAM STREET, LONDON, N.W.

CARMINE PUR.

Chemists and others requiring Pure Carmine of the **FINEST QUALITY**
will find this far superior to any other. It is intensely rich and brilliant
in colour, perfectly soluble, and offers great advantage in price.

1 oz., 2s. 3d.; 4 oz., 8s.; 1 lb., 30s., nett cash, free by post.

J. SELLERS, 57 Farringdon Road, London, E.C.

HORN & SON.

OFFICES FOR BRITISH AND FOREIGN

PATENTS AND TRADE MARKS,

SOMERSET CHAMBERS, 151 STRAND, LONDON
(NEXT TO SOMERSET HOUSE).

Guide to New Patent Law and Registration gratis.

CARMEL.

This Castile Soap is manufactured at Mount Carmel, Palestine, from
pure Olive Oil pressed on the spot. As an emollient for the skin and com-
plexion it is the most ancient and best soap.

AGENTS WANTED IN EVERY TOWN.

DEPOT FOR GREAT BRITAIN AND COLONIES—

MOUNT CARMEL SOAP CO., 24 Charles Street, LONDON, E.C.
, Hatton Garden,

ANALYTICAL AND CONSULTING CHEMIST.

GEO. LOGAN RAIT, F.C.S., &c.

Laboratory—31 MOORGATE ST., LONDON, E.C.

Assistance given to Manufacturers and others requiring Chemical
knowledge.

Fifty per cent. discount allowed to the Trade.

RUBBER TYPE

On Metal body, perfectly accurate, for instantly making a RUBBER
STAMP for Special Labels, &c., saving expense and delay. Complete
Outfits from 7/6. Send for Specimens and Price List to the Patentee,
E. M. RICHFORD, Dept. 44 Snow Hill, London,
Manufacturer of Rubber Stamps, Presses, the "Nigropadd" and
"Effective" Self-Inking Pads, &c., and Stamp-making Outfits.

Chemists in all parts of the world can add largely to their profits by pushing our
Goods. Liberal terms.

GIVEN AWAY!

YOUR MONOGRAM or NAME.

Anyone sending 3d. for postage, &c., and men-
tioning this advertisement, will receive gratis his
Two-Letter Monogram in above style, or his name
in full, for Marking Linen or Paper. Great variety
of Stamps. Specimens free.

VAN HOUTEN & CO., Stereotypers in India-rubber,
21 COLEMAN STREET, LONDON, E.C.

Houten.

HONEY-DROP—FOR THE SKIN

Retail—6d., 10d., 1/6, and 3/-

This splendid preparation, which is selling immensely, can be had
wholesale from

EDWARDS & SON, LONDON; EVANS, GADD & CO., EXETER
Special Terms for Agencies. Enquiries solicited.

Sole Proprietor and Manufacturer,

GEORGE STOCKER, CHEMIST, EXETER.

PRECIPITATED CHALK, WHITEST AND PUREST.

CHEAPEST SELLERS IN THE MARKET.
ALSO CHEMICALS, DRUGS AND OILS.

APPLY TO

AUG. LEVERMORE & CO.,
8 LIME STREET LONDON, E.C.

PETROLEUM JELLY,

EQUAL TO AND CHEAPER THAN VASELINE.

SANITARY FLUID AND SHEEP DIP,
THE CHEAPEST AND BEST DISINFECTANT.

GREASE, PITCH, ASPHALTE, AND ALL PRODUCTS OF TAR AND ROSIN.

Samples and Prices on application.

GRINDLEY & CO., POPLAR, LONDON, E.

EMP. BELLADONNA.

ON SWANSDOWN, 16 IN. WIDE.

17s. per Doz. net cash.

JOHN QUILLIAM & CO., Plaster Works, Manchester.
Cowburn Street, [21]

ORANGE WINE

(VIN. AURANT., P.E.)

Specially brewed for Quinine Wine, does not deposit. Is well adapted for Export,
as it will keep good in any climate. In casks, 13, 27, 56, 112, 140 gallons; small
casks 3s. 9d. per gall., carriage allowed. In wine bottles (not less than 3 doz.), at
1s. 6d. per doz., including bottles. Cases extra and returnable.

Sample six stamps. Special quotations to large buyers.

GEO. DURRANT & CO., Hertford.

HOOPING COUGH! HOOPING COUGH!! HOOPING COUGH!!!

Positively and quickly cured by the New Discovery,

KEMP'S WHOOPALINE

(TRADE MARK.)

Is a certain cure in all cases of Hooping Cough, Bronchial Disorders, and all
affections of the Chest and Lungs. Price 1/2 and 2/9 per bottle.

Prepared only by

W. H. KEMP, 220 Holloway Road, LONDON,

Wholesale Agents:—

Messrs. BURGOYNE, BURBIDGES & CO., 16 Coleman Street, London, E.C.

CHLORIDE OF GOLD

19/- per dozen

15-grain Tubes

(guaranteed);

Postage, 2d.

The best in the market. Immense quantities sold. Exported to all parts
of the World.

LOUIS ROWLAND (Refiner),

59 South John St., LIVERPOOL.

KERNICK'S

LIME JUICE CORDIAL

(SWEET OR DRY),

FRUIT SYRUPS ETC.

LIST FREE.

KERNICK & SON, CARDIFF.

S. SAINSBURY'S

A Highly-perfumed Scent,
prepared from the finest

ENGLISH LAVENDER,

without any foreign whatever.

176 & 177 STRAND, LONDON.

Wholesale and Shipping terms on application.

Lavender

Water.

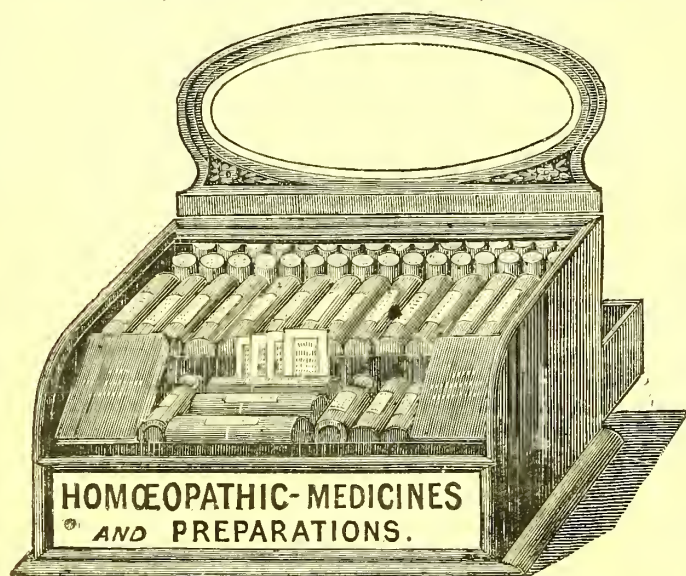
KEENE & ASHWELL'S

HOMŒOPATHIC MEDICINES,

AND AGENTS' SHOW CASES.

OUR £5 AGENTS' CASE,

IN MAHOGANY, WITH BENT-GLASS FRONT, AND ORNAMENTAL WORK ON TOP, WITH BEVELLED MIRROR.



This Case takes up the same room on Counter as the 4-Guinea Case,

AND

CONTENTS REALISE AT RETAIL PRICES, £10 10s.

The same in Oak, American Walnut or Ebonised Wood, 7/6 extra.

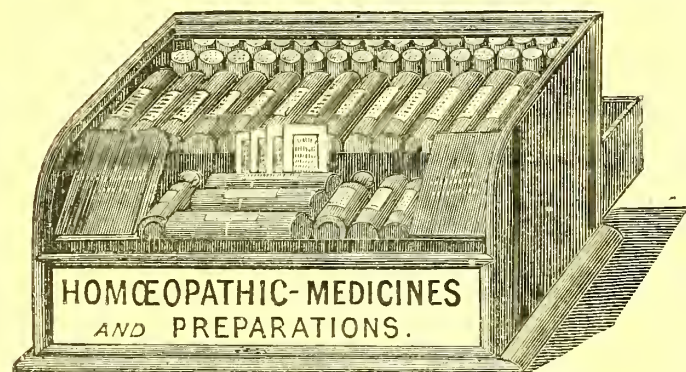
CONTAINS—

		£	s.	d.
93	bottles of Tinctures to retail at	1/-	4	13 0
93	" Pilules	1/-	4	13 0
10	" External Tinctures to retail at ..	1/-	0	10 0
2	" Homœopathic Camphor ..	1/-	0	2 0
2	" Camphor (Rubini's) ..	1/-	0	2 0
6	" Camphor Pilules ..	1/-	0	6 0
2	copies of a Domestic Work on Homœopathy ..	1/-	0	2 0
4	packets of Arnica and Calendula Plaster to retail at	6d.	0	2 0
	Retail ..		£10	10 0

Pamphlets on the treatment of "Common Complaints," free.

OUR £4 4s. AGENTS' CASE,

IN MAHOGANY, WITH BENT-GLASS FRONT.



CONTENTS REALISE £9.

The same Case in Oak, American Walnut or Ebonized Wood, 6/- extra.

CONTAINS—

		£	s.	d.
80	bottles of Tinctures to retail at	1/-	4	0 0
80	" Pilules	1/-	4	0 0
8	" External Tinctures to retail at ..	1/-	0	8 0
2	" Homœopathic Camphor ..	1/-	0	2 0
2	" Camphor (Rubini's) ..	1/-	0	2 0
4	" Camphor Pilules ..	1/-	0	4 0
2	copies of Dr. Wood's Book "Easy Homœopathy"	1/-	0	2 0
4	packets of Arnica and Calendula Plaster to retail at	6d.	0	2 0
			£9	0 0

Pamphlets on the treatment of "Common Complaints," free.

Dimensions—9½ in. high, 18½ in. wide, 14 in. deep.

KEENE & ASHWELL are successors to HEADLAND & CO.

THE FIRST ESTABLISHED HOMŒOPATHIC CHEMISTS IN GREAT BRITAIN.

74 NEW BOND STREET, LONDON.

TRADE

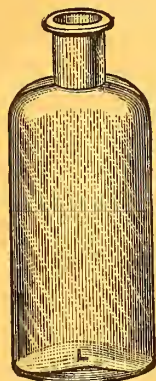


DISPENSING BOTTLES

PRIZE MEDAL.



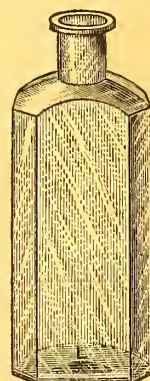
SYDNEY, 1879.



QUININE TINTED.

"L" BRAND.

Warranted Finest Quality Metal, Good
Mouths, and Correct Measure.



CATALOGUE No. 42a. In any quantity from Stock.

FLATS OR OVALS.

Size	...	1 oz.	1½ oz.	2 oz.	3 oz.	4 oz.	6 oz.	8 oz.	10 oz.	12 oz.	16 oz.	20 oz.	24 oz.	32 oz.	40 oz.
Per Gross		9/-	9/6	10/-	10/6	10/6	11/6	11/6	16/-	17/-	21/-	25/-	27/6	36/-	40/-
Discount : 10 per cent. Monthly, 5 per cent. Half-yearly.															

ALSO

IN ORIGINAL PACKAGES DIRECT FROM WORKS.

Carriage paid to Bristol, Glasgow, Liverpool, or London.

"L" BRAND. CATALOGUE No. 42a.

Size	...	1 oz.	1½ oz.	2 oz.	3 oz.	4 oz.	6 oz.	8 oz.	10 oz.	12 oz.	16 oz.	20 oz.	24 oz.	32 oz.	40 oz.
Per Gross		7/6	8/-	8/-	8/6	8/6	9/6	9/6	12/6	13/6	16/6	20/-	22/-	29/-	33/-

BEST GREEN FLINT FLATS OR OVALS.

CATALOGUE No. 42.

Size	...	½ oz.	1 oz.	1½ oz.	2 oz.	3 oz.	4 oz.	6 oz.	8 oz.	10 oz.	12 oz.	16 oz.	20 oz.	24 oz.	32 oz.	40 oz.
Per Gross		6/-	6/-	6/-	6/-	6/8	6/8	7/9	7/9	10/6	11/6	15/-	19/-	22/-	27/6	32/-

STRICTLY NET CASH.

CASKS OR CRATES EXTRA.

LYNCH & CO., ALDERSGATE STREET, **LONDON, E.C.**

AND

48 QUEEN STREET, MELBOURNE.

THE BEST NATURAL APERIENT.

Persistent attempts are made by interested parties to deceive the public by offering Natural Mineral Aperient Waters with marks, names, and designations very similar to those which are used by the

APOLLINARIS COMPANY, LIMITED, UPON THE NATURAL MINERAL APERIENT WATERS IMPORTED BY THEM.

Under these circumstances the APOLLINARIS COMPANY (LIMITED) feel compelled to caution the public that the HUNGARIAN BITTER WATER sold by the COMPANY always bears the name of the APOLLINARIS COMPANY (LIMITED) on the Label, and a RED DIAMOND, which is their TRADE MARK of Selection.

DEMAND THE DIAMOND MARK,

and insist upon receiving the HUNGARIAN APERIENT WATER of the APOLLINARIS COMPANY (LIMITED).

CADBURY'S COCOA ESSENCE

The medical profession order Cadbury's Cocoa Essence in thousands of cases, as the most wholesome beverage. Be sure

you get it when asked for, as imitations are often pushed for the sake of extra profit.

"We have carefully examined the samples brought under our notice, and find that they are genuine, and that the Essence of Cocoa is just what it is declared to be by Messrs. Cadbury Brothers."—*Lancet*.

"Cocoa treated thus will, we expect, prove to be one of the most nutritious, digestible, and restorative of drinks."—*British Medical Journal*.

GUARANTEED PURE AND SOLUBLE.

SOLE IMPORTERS

OF

APOLLINARIS WATER,

FRIEDRICHSHALL WATER,

HUNYADI JÁNOS WATER,

THE APOLLINARIS CO., LIM.

19 REGENT STREET, LONDON, S.W.

SPECIAL PRICES ON APPLICATION.

THE CHEMIST & DRUGGIST

SUPPLEMENT.

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, JUNE 30, 1888.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

This Supplement will be given free to any Chemist and Druggist or Assistant who will call for it at 42 Cannon Street on Friday afternoon, or will be posted on Fridays to any one who sends an addressed postal wrapper.

ADVERTISEMENTS for this Supplement can be received on FRIDAY MORNING, first post, though it is requested that these may be sent in as early in the week as possible.

EXCHANGE COLUMN ADVERTISEMENTS will appear on page 14 (bottom folio), and must be received not later than THURSDAY AT NOON, to appear in the issue of the Saturday following.

All Advertisements for this Supplement and Exchange Column must be prepaid. Remittances payable to EDWARD HALSE and crossed MARTIN & CO.

OFFICES: 42 CANNON ST., LONDON, E.C.

EXCHANGE COLUMN FORMS

Can be had on application to the Publisher, at the Offices,
42 Cannon Street, London, E.C.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co has been known as a Transfer Agency since the year 1848, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—LONDON.—City Business.—Very old-established, well-known Business, with several valuable Proprietary articles attached; returns last year about £900, with over £400 yearly *net profits*; about £800 required; applicants must enclose reference.

2.—LONDON, N.E.—Large handsome Pharmacy for immediate disposal; returns, under management, about £700; can easily be doubled by a good man; large attractive house; very convenient; price £600, or offer.

3.—LONDON.—Main road; Dispensing, Prescribing, and Retail Business; established many years; returns nearly £600, *with good profits*; comfortable house, contains 8 rooms and shop; held on lease at moderate rental; price £400; £100 of the purchase-money can be paid by instalments, or cash offer will be accepted.

4.—LONDON.—Wholesale Partnership.—A Partner required in a very old-established, well-known Business; a gentleman prepared to undertake travelling required; an investment of £2,000 would suffice at present.

5.—LONDON.—In a good residential neighbourhood, the nucleus of good Business; large and handsomely fitted shop; returns under an assistant £350; house has ten rooms; vendor having other employment will accept less than the value of stock and fixtures.

6.—LONDON, near Regent's Park.—Retail and Dispensing, with post office; returns £650, *with good profits*; comfortable house, with private entrance; price £500; good sound investment.

7.—HOME COUNTY.—Good business; locality; Retail and Dispensing Business of good class; returns £700 yearly, increasing; large handsome shop and good stock; good house, attractive garden, &c.; price £600.

8.—NORTH OF ENGLAND.—Dispensing and Retail, with good Medicine-chest trade (very profitable); returns last year over £800; *net profit* £300; double-fronted shop and good stock; good 10-roomed residence (vendor's own); lease to be granted; price £700.

9.—YORKSHIRE.—Dispensing, good Retail, and Mixed trade, with branch; returns upwards of £1,400 yearly; *net profit* about £400; good house and garden; no premium for goodwill; value of stock and fixtures; references required.

10.—SOUTH OF ENGLAND.—Fashionable watering-place; good-class Retail and Dispensing Business; returns average over £1,600, *with good profits*; large handsomely fitted shop and good stock; full particulars on receipt of reference.

11.—NORTH DEVON.—Good market town; an old-established Business, held by the vendor many years (now retiring); large and convenient shop, with good stock; large house; returns average over £600; *profit's very good*; price £450, or valuation.

12.—WEST OF ENGLAND.—Good-class Retail and Dispensing Business, situate in a good market town; returns about £450 (a young man could do much more); large house, with cellars, &c.; large double-fronted shop, in best position; attractive garden; price, to include goodwill, stock, fixtures, and lease, £400.

13.—PLYMOUTH.—Retail and Prescribing Business; capable of great extension; returns £400, *with good profits*; good shop and stock; convenient house; about £300 required.

14.—KENT (main line of rail).—Fashionable locality; Retail and Dispensing Business; returns average nearly £1,000, *with good profits*; well fitted shop and good stock; about £600 will be accepted from an immediate purchaser.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

PARSON C. BAKER,

8 Stockbridge Terrace, Victoria Station, S.W.

25 Years' Experience Valuation for Probate, &c.

1. LONDON, N.....	Returns £300.	Rent £45.	Price £180
2. DURHAM	" 1,000.	" 46.	" 500
3. CHESHIRE	" 1,300.	" 55.	" 700
4. GUERNSEY	" 385.	" 40.	" 300
5. LINCOLNSHIRE ..	" 500.	" 45.	" 250
6. HANLEY	" 930.	" 30.	" 450
7. LIVERPOOL	" 890.	" 50.	" 700
8. KENT	" 1,000.	" 60.	" 600
9. SYDENHAM	" 300.	" 30.	" 220
10. ESSEX	" 680.	" 22.	" 400
11. LEYTONSTONE ..	" 240.	" 40.	" 225
12. WEST BROMWICH ..	" 400.	" 50.	" 250

Some of above, newly established, increasing rapidly.

TO BE LET OR SOLD.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

CORNER Shop and House to let; good business part; rent reasonable; suitable for a Chemist and Druggist; good opening. Apply, E. Cowley, Goldsmith, Stockton-on-Tees.

SHOP and House to let at Potter's Bar, near Barnet; suitable for a Chemist; a good trade may be done in the neighbourhood, where no business of the same kind is established. Apply to James Bunt, Builder, Little Berkhamstead, Hertford.

WAREHOUSE or Factory.—To be disposed of, an extensive and convenient premises in a most central situation, midway between City Road Bridge and Islington Green—one mile from the Bank; suitable for workshops, stores, or stabling; a large yard for standing vans, &c.; a good dwelling-house attached suitable for a foreman's residence and all enclosed by gates; lease held direct from the freeholder. To view, apply to M. L., 29 Sherbourne Street, Downham Road.

PARTNERSHIP.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

A GOOD opportunity for an investment of from £250 to £500 in a good sound and profitable Chemist's Business; must be a qualified chemist, and would be required to take the management of one of the branches at a salary to be agreed upon; books show for the last few years that a good dividend may be relied upon. "Statim," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUSINESSES WANTED.

ON or near the South-East Coast, a Light Retail, Dispensing Business about £1,000; no agents. Mr. Green, Sea View Terrace, Mundesley, Norfolk.

A GOOD sound Chemist's Retail Business; must bear the strictest investigation; cash £1,000. Full particulars in confidence to C., care of Mrs. Scholey, Moorgate Villa, Retford.

WANTED, a thoroughly genuine Chemist's Business; must bear the strictest investigation, with a net profit of £250 to £300 per annum; no agents; a town or country business. If near Liverpool, address H. J., General Post Office, up to Monday morning; after that date, H. J., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

SOUTH STAFFORDSHIRE.—For disposal, a Light Retail, Dispensing, and Prescribing Business; good profits; shop well fitted; price £250, or by valuation; established over 50 years; declining health cause of disposal. J. Tunley, 255 High Street, Westbromwich.

A BONA-FIDE Business for disposal in busy town, W. R. Yorks.; capable of doing £1,000 per annum; corner shop; excellent position; moderate rent; satisfactory reasons for disposal. Apply by letter to "Optimus," care of Messrs. W. Bleasdale & Co., York.

IMMEDIATELY; through ill-health of proprietor; an old-established Dispensing Business, in a fashionable city, in the West of England; in the same hands since 1850. Apply to "Ph. C. C.," care of Messrs. Meggeson & Co., Miles Lane, Upper Thames Street, E.C.

SUSSEX.—In a small country town, a good-class Retail, Dispensing, and Prescribing Business; returning nearly £1,000 at full prices; low rent; large house and nice garden; same hands many years; price £850, or reasonable offer; ill-health sole cause of sale. "Vendor," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SURREY.—For immediate sale; unopposed Light Retail and Dispensing Business; no other Chemist for two miles; returns £500; net profit £200; low rent; good house; corner shop; well fitted and stocked; price £400, or first reasonable offer. Apply to W. A. L., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LONDON, S.E.—Main road, densely populated; good-class neighbourhood; returns £7 per week; rent £55; very good house, would let easily; modern, elegantly fitted shop; satisfactory reasons for disposal; price £300 (being much below valuation). Apply, by letter, to Mr. Winchcombe, 46 Bellefield Road, Brixton.

MUST be Sold.—Chemist Retail; established 29 years, but latterly neglected; capital opening in main street of thriving town; corner shop, centre of dense neighbourhood, well fitted; easy rent; can be purchased on advantageous terms; good reasons for disposal. "Menthol," care of Knight, 281 Broad Street, Pendleton, Manchester.

BIRMINGHAM.—Chemist, Druggist, and Drysaltery Business for disposal; leading thoroughfare in populous district; established over 50 years; sales about £1,200; stock and fixtures £250, or at valuation. For further particulars apply to W. O. Hill, Chartered Accountant, 27 Bennett's Hill, Birmingham.

CHESHIRE.—A genuine Light Retail Drug Business at Frodsham; good profits; now under management; could be doubled by principal; increasing neighbourhood and healthy situation; making great improvements in house; rent £25; price £200; strict investigation and inspection invited. Apply, Geo. Marshall, Chemist and Dentist, Runcorn.

MAIN thoroughfare; large manufacturing town, Midlands; a capital Retail and Prescribing Business; same hands 8 years, last three under manager; returns £1,000; rent £30; price 450. Apply, Mr. Hope, care of Mr. Baker, 8 Stockbridge Terrace, S.W. Small Wholesale with same, if desired, for value of stock and fixtures.

NORTH London suburb on the G. N. R.; newly-fitted and stocked Pharmacy; opened 1886 under proprietor; did £12 weekly (owing to ill-health has been neglected); under manager doing £8; to secure prompt sale £180 will be accepted. Mr. Wood, care of Mr. Baker, 8 Stockbridge Terrace, S.W.

£250 (OPEN TO OFFER) for small genuine ready-money profitable good-class Business; nice shop, well stocked, full working order; returns doubled last twelve months; main thoroughfare in large town (West); good house, garden; reason for disposal, independent of business. 247/35, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

HANDSOMELY-FITTED Shop and nice House, under care of an Assistant for the last five years; no cutting; if managed by principal £10 per week may be taken; no booking; good stock of everything; situated North of London; good class of customers; price £400; rent £65. Apply personally to Dr. Harle, corner of Gerard Street, Colebrook Row, Islington, when every satisfaction will be given.

EXCELLENT old-established ready-money Business for Disposal; situated in the busiest thoroughfare in one of the largest towns in the Eastern Counties; returns last year between £500 and £600; new stock and fittings; side entrance; comfortable house and small garden; those only who are able to make a personal investigation and give satisfactory reference treated with. Address, "Naiad," care of Heaton & Co., 5 Coleman Street, London.

A PROFITABLE Mixed Family, Prescribing, and Dispensing Business in small inland watering-place in Yorkshire; for the last two years conducted by an assistant; in the hands of an energetic and obliging principal would do at least £800 per annum; large house and warehouse; shop double fronted, plate-glass windows; rent £55; could be made by letting during the season; easy terms; no goodwill. Apply, M. P. S., care of Rev. J. Smith, Brunswick Street, Leeds.

LONDON, E.C.—In a main busy thoroughfare; first-class Prescribing, Retail, and Dispensing Business; very old-established and well known; returns £1,000; shop handsomely fitted and good stock; large and convenient house, nearly all let off as offices; easy terms could be arranged with an immediate purchaser; this is an opportunity seldom met with. Apply by letter, to A. F. O., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED at once, an active Assistant, well up in his business. Apply personally at 55 Great Marlborough Street, Portland Place, W.

JUNIOR Assistant; state salary required and full particulars; enclose photo, if convenient. Apply, A. Gower, Chemist, Tonbridge, Kent.

WANTED immediately, a Good Junior; one used to the Drug Store trade. Apply to 71 Smithford Street, Coventry.

ACTIVE JUNIOR at once; salary £25 per annum; must have a good knowledge of Country trade, Dispensing, and Counter, &c., and first-class references. Apply, Fielder & Co., Newbury, Berks.

WANTED, a Junior Assistant (outdoors) of good experience, about 21, for July 12th. Enclose photo with the usual particulars to J. Whitfield, 3 Avenue Road, Scarborough.

AN Assistant, about 21, accustomed to a country business. Apply, stating age, salary required, with reference, to H. Barton, Pharmaceutical Chemist, St. Ives, Hunts.

WANTED, Assistant, used to first-class Dispensing business; one with a knowledge of stores trade preferred. State terms and references to J. F. Harston, Chemist, Lincoln.

WANTED, an Assistant married; house and gas found; Light Retail; easy hours; state age, salary required, and reference. W. Burnett, 285 Hedon Road, Hull.

WANTED a qualified experienced Assistant; aged 26 to 30; good London references essential. Apply, in first instance by letter only, stating salary required, to C. H. F., 60 St. Helen's Gardens, North Kensington.

MANAGER wanted for branch business in working-class neighbourhood; unmarried preferred; furnished rooms and attendance found, but not board. Apply, with full particulars as to salary required, age, references, &c., C. J. Walker, Chemist, West Green, Tottenham.

MR. EDWARD J. EATON, Pharmaceutical Chemist, Woodbridge, requires a gentlemanly outdoor Assistant; must be sober, trustworthy, obliging, and able to take charge occasionally; (1) send photo, (2) reference to last situation, (3) salary required, (4) age, (5) height.

IMMEDIATELY, Junior Assistant, accustomed to ready-money Retail and Dispensing Business; obliging and quick at putting up stock. Apply personally (if possible), "Pharmacist," 137 Queen's Crescent, Haverstock Hill, N.W.

WANTED, a trustworthy Assistant for Country Mixed Business; good Prescriber and Tooth Extractor essential; married preferred. State salary required, &c., to Butler & Son, Wholesale Druggists, Saucy Gate, Leicester.

A JUNIOR Assistant, indoors, with good provincial experience; must be a neat and accurate dispenser, and well up in the business; first-class references and testimonials; state age, height, salary, and enclose photo. Chave & Jackson, Pharmaceutical Chemists, Hereford.

WANTED, a qualified man, of active habits, to reside on the premises and manage an old-established Drug Business, with Post Office; postal assistant kept; rent free; preference given to one who could introduce Dentistry and ultimately succeed to the business. Full particulars, salary required, F. W. Robinson, Chemist, Myton Place, Hull.

WANTED, Indoor Assistant, aged about 23, to take charge of Drug counter in a Mixed business, and also to assist with Grocery; hours short; no Sunday duty; letters not promptly answered declined; state full particulars as to experience and salary. Apply, G. H. Morgan, Chemist and Grocer, Wem, Salop.

DISPENSER required at the Great Northern Central Hospital, Holloway Road, N.; salary £100 per annum with partial board; candidates must be qualified under the Pharmacy Act, and are requested to send in their applications, with copies of test monials, to the Secretary, on or before July 16, 1888.

WANTED immediately, for Seychelles, an experienced Pharmacist not over 30 years of age, with Minor qualifications; salary from 1,200 to 1,400 rupees per annum. Further particulars can be had on application to J. H. B., care of Wright, Layman & Umney, Southwark, London.

WHOLESALE.—Junior Assistant in wet department wanted by a firm in the North; must be accurate and reliable and have first-class references; previous experience in wholesale desirable. Applications, stating salary required and full particulars, to P. O., Box 159 Newcastle-on-Tyne.

JUNIOR Assistant, about 21; indoors; for suburban retail; must possess good references and be willing to assist in postal duties; previous experience in latter not necessary; one able to extract teeth preferred. State age, salary required, and experience to Matthews & Son, Chemists, Harrow Green, Leytonstone, E.

ASSISTANT Wanted.—First-class Assistant; Minor qualification; one accustomed to brisk, pushing trade, quick and reliable dispenser, and able to prepare the simpler Pharmacopœia articles; abstainer preferred; hours 9 a.m. till 7 p.m., except Saturday; no Sunday duty. Reference to former employers and full particulars of salary, &c., to 248/11, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

LOCUM; town or country; now disengaged; 37. Davis, 34 Mayton Street, Holl. way, N.

LOCUM-TENENS; Hospital or Retail; disengaged. R., 28 Ampton Street, London, W.C.

AS Assistant or Manager, with view to purchase; market town preferred. G. B., 38 Aireville Road, Frizinghall, Shipley.

SITUATION in pill room; 5 years' experience in wholesale house; good references. "Minor," 36 Trederwin Road, London Fields.

IMPROVER; 2 years' experience; aged 16 to 17; Midland Counties preferred. A. D., care of Mr. Mason, Bromsgrove.

AS Chemist's Assistant; good Salesman; would not object to travel; lug; indoo's preferred; salary no object. Fiske, East Dereham.

RE-ENGAGEMENT in Wholesale; first-class experience. K., 124 Hanley Road, N.

TEMPORARY Manager; accustomed to first-class business; aged 30; good references; qualified. H. W., Ivories House, Horley.

JUNIOR; in or outdoors; salary secondary. J. Lee, jun., Crich, Derby.

WHOLESALE.—Situation required in Warehouse; good experience; aged 30; London or country. Tedder, 319 Roman Road, Bow, E.

MANAGER; prescriber; aged 40; 6 years' reference; qualified. H., 9 Beech Street, Tunbridge Wells.

JUNIOR (20); can extract teeth, and has a knowledge of postal duties. R. S., 1 Gravel Lane, Salford, Manchester.

ASSISTANT; temporary, or view to purchase. M., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT or Branch Manager; qualified; temporary, or permanent preferred; in or outdoor. Particulars to "Beta," Mr. Morgan, Chemist, Hereford.

ASSISTANT, or Branch; town or country; experienced prescriber, dispenser, extractor; 29; married; permanency. B., 144 Westmoreland Road, S.E.

JUNIOR; aged 20; height 5 ft. 4 in.; 5 years' experience; disengaged July 14; good references; City or suburbs preferred. Address, "Kep," 4 Westbourne Terrace, Drayton Road, West Croydon.

TRAVELLER open to engagement; aged 25; sound connection, South Wales and West of England; ample references and security. 247/32, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT; 7 years' experience; good references; disengaged; state hours. J. E. Howard, 3A Fifth Avenue, Queen's Park, Paddington.

JUNIOR; over 20; more than 4 years' experience; passed Prelim.; tall; satisfactory references; about end of July. Apply, "Assistant," care of Mr. Fitton, Chemist, Huddersfield.

TRAVELLER.—Large connection amongst Chemists and Stores both London and country; first-class references. Address, X. Y. Z., May's, 159 Piccadilly.

IMPROVER; passed Pharmaceutical and Medical Preliminaries; speaks French; aged 19; time required. "Delta," 1 Railway Cottages, New Southgate.

TEMPORARY; town or country; 25 years' active experience; good prescriber; at liberty July 9. "Vindex," 30 Matthias Road, South Hornsey.

PART TIME; situation in London, with small salary, wanted by advertiser; aged 21.—Thomas, 37 Wyndham Street, Marylebone Road, W.

ADVERTISER, of extensive experience, married (no small family), wishes for management of Light Retail and Prescribing Branch Business; pleasant locality; country preferred; if jointly suitable could eventually purchase; reference and security. "Chemist," 21 Shrubbery Street, Kidderminster.

£25 will be given for information as to a suitable opening for medical practice, should such information upon investigation lead to advertiser beginning in the place named. Address, "Strophanthus," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LITERARY.—To Chemists.—A medical man of good literary standing would be glad to arrange with Chemists for the drawing up of circulars relative to new preparations, &c., in which his technical knowledge and journalistic connections would be of service. Address, stating terms, to "Journalist," 378 Oxford Street, W.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading, which can be obtained on application.

CH. DELACRE & CO., Brussels, Wholesale Chemists and Sundriesmen, are always pleased to enter into negotiations with any British or American firm who wish to push their Specialities in Belgium or Holland; travellers kept.

BOXES.—Light Wood Boxes, cheapest, strongest, and best, suitable for packing all kinds of articles for transmission by post or rail; all sorts and sizes of boxes made to order; samples and price-lists, 4 stamps. Write for sample, stating size required, to T. Casbon, Millfield Box Works, Peterborough.

NOTICE TO MANUFACTURERS OF SO₃ OR OF FERTILISERS.

A LARGE COPPER-PRODUCER FROM PYRITES is introducing a NEW MECHANICAL ROASTER, and ready to make arrangements with a manufacturer of acid or of fertilisers for the utilisation of the fumes on the premises (being in New England and near the market for fertilisers) under conditions exceedingly favourable to the manufacturer. Further particulars can be obtained from the Copperfield Mining and Smelting Company, Post Office, West Fairlee, Vermont, U.S.A.

PRELIMINARY AND MINOR.

ALL Students who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. 32 Pupils passed the last Examinations.

STUDENTS' AIDS TO EXAMINATION.

PRELIMINARY.—Arithmetic and Metric System, 1s. How to Write an Essay, 3d. Caesar Simplified, 1s. Kn tly Points in Latin Grammar, 1s. 6d. MINOR.—Equations Simplified, 1s. Illegible Autographic Prescriptions, 1s. Notes on Dispensing, 1s. Prescriptions given at the Minor, 6d. "Chemist," care of Mr. J. Edwards, Wye, Kent.

GEO. STIRLING'S BOOKS FOR STUDENTS.

A Table of Organic Materia Medica.—A *concise* guide to the animal and vegetable substances of the British Pharmacopœia, and also to many non-official drugs in common use. Bound in stiff cloth, post free, 1s. 7d.

Notes on Dispensing, 3rd Edition.—Written expressly for "Minor" students. Consists of hints on the manipulation of mixtures, emulsions, suppositories, &c., with a special section on difficult pills and excipients, and pearl-coating. Blank pages for MS. notes. Post free, 1s. 1d.

The Pocket Botanical Companion.—Arranged as an aid to beginners. Post free, 7d.

Doses of B. P. 1885.—Compactly arranged for vest pocket. Post free, 6d.

GOWER, Publisher, 47 Sigdon Road, Dalston Lane, London.

ROYAL (DICK) VETERINARY COLLEGE,
8 CLYDE STREET, EDINBURGH.

TRUSTEES—The LORD PROVOST, MAGISTRATES, and TOWN COUNCIL of the CITY of EDINBURGH.

The 66th SESSION begins 1st October, 1888.

THE TRUSTEES beg to intimate that the College Buildings have been entirely reconstructed, so as to provide ample accommodation for the instruction of 250 Students. The Class Rooms, Museums, Dissecting and Bone Rooms, Chemical and Physiological Laboratories, Reading-rooms, Gymnasium, Pharmacy, Stables, Kennels, &c., are unsurpassed in their completeness, and present opportunities for the study of Veterinary Science such as have not hitherto been available for Veterinary Students.

For full particulars apply to PRINCIPAL WALLEY.

AN ESTABLISHED NEW YORK
COMMISSION AGENCY,

Representing well-known English Manufacturing Chemists, and now doing an extensive business with the Wholesale Drug Trade of America, can introduce Specialities to advantage. Correspondence solicited.

Address—FRANCIS J. MACNAUGHTAN, 20 Cedar Street, New York City, U.S.A.

REFERENCES—T. & H. SMITH & Co., 12 Worship Street, London; MAY & BAKER, Battersea, London ROBERT GRAESSER, Ruabon, Wales.

LOISETTE'S System of Memory Training is the ONLY one by which the Natural Memory can be improved until no Device is needed. Mr. PROCTOR, author of "Old & New Astronomy," and of "Astronomy" in the *Encyclopædia Brit.*, says "Prior, LOISETTE'S Method appears to me admirable." Prospectus, containing opinions of pupils who have PASSED EXAMINATIONS, and of members of the Medical, Scholastic, Clerical, etc., professions, post free from Professor LOISETTE, 87, New Oxford Street, London.

E. FOUGERA & CO.,

No. 30 NORTH WILLIAM STREET,
NEW YORK, U.S.A.,

Importers of and Agents for the Principal
FOREIGN MEDICINAL PREPARATIONS
AND SPECIALTIES.

AGENCIES AND CORRESPONDENCE SOLICITED.

OUR WEEKLY SUPPLEMENT.

We have prepared a set of forms for small advertisements (assistants wanted, businesses for disposal, Exchange column, &c.). With these are attached tables of useful reference matter (Sale of Poisons, Postal Information, Annual Licences, Metric Weights, Measures, Medicine Stamps, Law and Public Offices, &c.). We shall be glad to send one of these sets to any subscriber who will send us an addressed postal wrapper (bearing a halfpenny stamp). As the object of this production is to encourage the insertion of such advertisements as we have named in THE CHEMIST AND DRUGGIST, we hope this offer will be taken advantage of chiefly by those subscribers who are willing to use this journal whenever opportunities occur.

OFFICES: 42 CANNON STREET, LONDON, E.C.